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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

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The Annexation of Hawaii.

It is very well for the sugar interests of this country to seriously consider the apparently impending annexation of Hawaii. We do not desire to consider the matter from any military or political point of view, but from a purely industrial point of view, affecting as it would the domestic sugar industry of this country disastrously. The agitation of the sugar tariff during the last few years has wakened the people of America generally to the magnitude of the sugar industry of the world and to the possibilities of its vast development in this country. The great success being now made by the several beet sugar factories already in operation in this country is leading to the construction of a number of others. There could be no better evidence of this success than the fact that the Oxnard people, who own the Chino, Cal., and Norfolk and Grand Island, Neb., factories, are about to construct a still larger factory at Hueneme, Cal., and that Mr. Claus Spreckels, who has made such a success with his factory at Watsonville, Cal., is now building the largest factory in the world at Salinas, Cal., while the Clark Bros., who have just built and operated this season the beet sugar factory at Los Alamitos, Cal., have already contracted to double its capacity for the coming season. These evidences of confidence in the industry are better proof of a successful future than any boom influences that may be brought about by land speculators and others who know but little of the sugar industry and are simply endeavoring to sell their lands.

In Louisiana and Texas there is a healthful growth and considerable development in the sugar industry along the new central factory lines which have become generally adopted within the past few years. Cane farming, we believe, will double the Louisiana crop of sugar during the next five years. These are the industrial matters to which we

desire to call the attention of every one interested, believing as we do that they are seriously threatened by the possible annexation of the Hawaiian islands. Twenty-two years ago, when the reciprocity treaty with Hawaii was first effected, Louisiana earnestly protested against that treaty, but it was urged that the sugar crop of the islands was far less than 100,000 tons per annum and could hardly reach the hundred thousand ton figure. We now find that the sugar crop of the Hawaiian islands for the year ending October 1, 1897, was 251,000 short tons, nearly three times as much as it was then considered possible that it should ever reach. Vast schemes for the development of the Hawaiian islands are even now under consideration and there can be no doubt but that, with an investment of ample capital, vast irrigation works may be established and the Hawaiian sugar output soon reach double or even triple its present quantity, and this with necessarily destructive influences upon our domestic sugar industry.

It seems singular that any sentiment could be worked up in favor of Hawaii when we consider the character of their labor system. The sugar industry of Hawaii is practically founded upon forced labor. It is not a very serious stretch of the truth to say that the sugar industry of Hawaii is now practically based upon slave labor. Two hundred and fifty years ago many persons were brought over to Virginia and sold as slaves for given periods of time, to reimburse the ship captains for their transportation money. Some of these persons were well educated, seeking this country hoping for future development and willing to accept the condition of slavery for a time, hoping in the end to better their own condition. This may be the motive of the many thousands of contract labor in Hawaii. Be their hopes and expectations what they may, they are now in Hawaii under contract, and compelled to

work unless too ill to do so. There were employed last year about 22,000 laborers on the sugar plantations in Hawaii, over half of whom were contract laborers. The other half were styled "free" laborers, a distinctive use of the word free, indicating the semi-slave condition of the contract laborer. It has been found in Hawaii that the contract laborers when their periods of apprenticeship expire on the sugar plantations are frequently quite unwilling to renew their contracts, preferring to go to the coffee plantations. We mention all this to show that the United States is now seriously considering the annexation of the Hawaiian Islands, wherein the entire labor system is of a semi-slave character, and is seeking to bring that country into closer relations with our own, and into such relations as would unquestionably be injurious to our now developing sugar industry. We believe that every senator and representative in Congress who would give this matter fair consideration, would at once perceive the very incongruous proposition that is made by the annexationists.

In another column in this issue will be found a letter from Dr. Julius Koebig, the distinguished authority on sugar matters on the Pacific Coast, who argues that annexation is a desirable thing for us so far as Hawaii is concerned, in order to destroy their present labor system, and to thus practically destroy the sugar industry of Hawaii, he seeming to believe that with the fall of their labor system their sugar industry would also fall. This would certainly be a very dangerous experiment on our part, somewhat similar to that of the young woman who marries a persistent lover to get rid of him, and generally regrets her reluctant consent. If the Hawaiians have sufficient influence in this country to procure their annexation to the United States, it is comparatively certain that they will maintain, or in some manner develop, their own labor system, recruiting it in the future as in the past from the native kanakas and from the South Sea Islanders, just as they are now doing, and as is also done by the English colony of Queensland.

The whole subject matter is a most serious one, and we shall hope that the better judgment of our senators and

representatives in Congress will result in the defeat of the entire scheme. It seems to have been well worked up on the part of the annexationists and they seem to have hopes that they can "jam their bill through" Congress, without much difficulty. We must rely upon the better judgment of Congress and shall hope that the entire annexation scheme will suffer ignominious defeat.

Professor Hilgard and the Louisiana Sugar Industry.

Prof. E. W. Hilgard, of the University of California, has been writing a series of articles on the beet sugar industry in California, which have been published in the *Pacific Rural Press*. All that Professor Hilgard writes is usually so excellent and so accurate that he is universally accepted as a standard authority and his dicta as final.

We must protest, however, in regard to what Professor Hilgard says concerning the sugar industry in Louisiana. In his third article on the subject under consideration he says as follows:

As regards, within the United States, the sugar cane industry of Louisiana, it labors under worse disabilities than even those resting on the beet as a source of sugar. In the tropics successive crops of cane can be made to keep costly improved machinery running nearly throughout the year; in Louisiana, on the contrary, the cane harvest must be cut and the sugar be made within six or eight busy weeks, if it is not to run the risk of being cut short by frosts. Within the same time the seed cane for the next season must be provided for, a state of things graphically expressed by the Louisiana sugar planters in the statement that "it takes thirteen months to make a crop of sugar." Cane can not, like the beet, be preserved for future working, but must be put through the mill and pans as fast as possible. This creates, during a short period, an excessive demand for laborers, of whom only a small proportion can be profitably occupied during the remainder of the season. It has been proposed to slice and dry the cane; but the damp climate and frequent rains of tropical countries render this procedure impracticable. It might be more feasible in the dry climate of southern California and Arizona, where, between successive crops and dried cane, the activity of a sugar factory might be kept up during the entire year, so far as the material is concerned.

Under these disadvantages the product of raw sugar per acre in Louisiana is only about 1600 pounds, while in Mauritius and other intertropical countries, where improved methods are practised, the product ranges from 3500 to 5500 pounds per acre. Even on this point, however, the beet is not distanced by its tropical competitor; for the average working yield of good beets is not less than two tons per acre, and this figure is very commonly exceeded in California. This result is obtained in the course of a five months' culture, while the tropical cane requires not less than twelve, and at some points as much as eighteen, months' cultivation before arriving at maturity.

Professor Hilgard certainly cuts the

time down too short. The ideal grinding season in Louisiana is about eight weeks long, and never less. If the reduced limit of six weeks be reached, as reported by him, it is because of an inadequate supply of sugar cane and not because of any climatic difficulties. The standard Louisiana season for successful sugar making is about ten weeks, say from October 20 to January 1. By windrowing two weeks' supply of cane, which can be done as readily in Louisiana as the siloing of beets can be done in California, and with probably less deterioration of the plant, our grinding season can readily be increased to twelve weeks. The expression that *it takes thirteen months to make a crop of sugar*, is based largely upon the necessity for thorough soil preparation, which must be done in advance.

The recent enormous development in cane farming in Louisiana shows that it is a successful industry. Any one familiar with it and now surveying the sugar horizon in this State will be much impressed by the increased preparations making everywhere for cane growing. Unless our industry is affected by adverse legislation, it is practically certain that the cane crop of Louisiana will be doubled within the next five years. And the bulk of the cane to do this will come from cane farmers producing cane on comparatively small acreages.

The last statement that we quote from Professor Hilgard is also very incorrect, as 1600 pounds of raw sugar from an acre of cane land in Louisiana would now realize little other than disaster, either to the cane grower or to the sugar manufacturer. The Louisiana statistics obtained from the Department of Internal Revenue showed that the average crop was about eighteen tons per acre and the average yield of sugar over 140 pounds. We thus reach, as evidenced by these statistics, an average of over 2500 pounds of sugar per acre, and many of our cane farmers are now realizing twenty-five to thirty tons of cane per acre and the sugar houses buying the cane rarely get less than about 160 pounds of sugar per ton, the sugar per acre thus realized reaching from 4000 to 5000 pounds.

As in the past Professor Hilgard has always expressed such kindly interest in Louisiana, we know that he did not contemplate doing our sugar interests any

injury by his remarks concerning them, and we simply call his attention to these remarks knowing that he will appreciate the spirit in which we make the correction.

The Hawaiian Sugar Planters' Association.

The annual meeting of this well known organization has just been held in Honolulu and a full report of its proceedings reaches us in the *Hawaiian Monthly* for December. The chief paper in the whole report is that on Sugar Manufacture, written by Dr. Walter Maxwell, with which we favored our readers in a recent issue.

In the report of the committee on machinery we find indicated about the same experiences that have been realized in Louisiana—that is, that increased pressure and increased maceration give increasingly good results and that a falling away in any of these is at once felt in a diminished output. A notable feature of this report on machinery, however, is the statement that the Deming superheat system of clarification is being extended year by year, and that the merits claimed for it have considerable foundation in fact. Mr. Goodale, of Onomea, writes:

"It is a cheaper process, and it is quicker and neater—cheaper in that it takes less labor and less steam, and juices are purer and sugars are higher in polarization after this process than the old method."

The report says further that the Pioneer mill of Lahaina and the Union mill of Cohala are both putting in superheaters for the coming crop.

No particular recommendations are made in regard to vacuum pans or multiple effects. It is reported that a large steel storage tank for No. 4 molasses, boiled into sugar, had not given satisfactory results, the masse cuite forming in a very fine grain. It was thought that this was caused by the masse cuite passing through a pump from the pan to the tank, and that the trouble will be overcome in the future by raising the pan so that the masse cuite will flow by gravity to the tank. We are inclined to believe that our Hawaiian friends are mistaken in this, and that the reason of the formation of the small grain is that the fine grains were not melted out of the molasses before it was boiled to sugar, or else that it was cooled too quickly. As in tropical Hawaii the lat-

ter hypothesis would hardly hold, we are led to believe that the fine grain of the previous sugar was not all melted out before boiling to string proof for the fourth sugar, as is essential to secure good grain.

A reminiscence is given of the origin of the Hawaiian Sugar Planters' Association. A circular letter was issued in February, 1882, about the time of the expiration of the reciprocity treaty of 1875 with the United States. An organization was effected to prevent the repeal of the reciprocity treaty, and that organization has developed into the present Hawaiian Sugar Planters' Association.

The Hawaiian sugar planters are unquestionably very progressive men and deserve great credit for their experiments, investigations and general go-aheadativeness. At the same time as their industry is founded upon contract or forced labor, we believe that its competition with the American sugar industry is an unfair one.

The Louisiana State Agricultural Society.

This well-known organization will hold its regular annual meeting, being its twelfth annual session, in the town of Crowley, January 26, 27 and 28. The Louisiana State Agricultural Society has for many years attracted to its annual meetings many of the leading agriculturists of our State. The State Department of Agriculture, with Commissioner Lee at its head, will do all in its power to promote the success of these annual meetings, and the session at Crowley promises to be one of the best and most successful thus far held. A number of distinguished agricultural writers and speakers have promised to be in attendance, and Southwest Louisiana itself is full of native talent, as evidenced by the wonderful agricultural growth of that section of our State, which a few years ago was but a vast prairie, with very few inhabitants. The town of Crowley and the police jury of the parish of Acadia have invited the Agricultural Society to hold its annual meeting there, thus giving renewed evidence of that spirit of pluck and enterprise that has developed Crowley's side track of twenty years ago into the present town of Crowley with its thousands of inhabitants, numerous rice mills and

other factories, excellent stores, hotels, newspapers and all the paraphernalia of city life.

The Louisiana Press Association a few years back held one of its most successful meetings in the town of Crowley, and pleasant recollections of that meeting are still carried by the members of the press throughout the State. The agriculturists of the State are now invited to participate in the hospitalities of Crowley, and we have no doubt that they will do so. Delegates have been invited from every parish of the State, the police juries having been requested to send them; all agricultural organizations are requested to send delegates, and every one interested, directly or indirectly, in agriculture is invited to be present and aid in the meetings. Crowley extends a royal welcome, and despite low prices, for the time being at least, agriculture will be in the lead.

The Crop Situation.

The past few days of fair weather have materially helped the planters in their endeavors to get the last of their crops to the sugar houses. The latter end of last week brought so much rain that the roads were converted into quagmires and hauling was made almost impossible, so that the sunny days following were duly appreciated. The campaign is now ending very rapidly and a general note of satisfaction appears to echo throughout the sugar belt. Phenomenal yields are not being chronicled, but good averages seem to be the rule.

Adulterated Cotton Seed Meal.

During recent years there has been an immense amount of fraud in the cotton seed meal offered to the public. It is stated that hulls are ground up purposely for mixing with the meal, in order to sell under the semblance of the genuine article this adulterated mass.

Prof. W. A. Rawls, State chemist of Florida, in a recent bulletin, calls attention to this matter of fraudulent cotton seed meal, and says that in that State bright cotton seed meal is offered for sale without analysis. It is indicated by the sellers that analysis is entirely unnecessary and that the buyer would thus save 25 cents a ton that the State collects on all fertilizers. Professor Rawls says that pure cotton seed

meal should contain not less than 8½ per cent. of ammonia, and that the average for this season runs above 9 per cent. A sample recently sent for analysis from Palatka was found to contain but 5.10 per cent. Based upon the valuation of \$21.60 for 9 per cent. meal, this sample in question would have a value of but \$12.24 per ton. The buyer of this, if endeavoring to save his 25 cents per ton by analysis, would be out \$9 36 on every ton purchased.

As those samples of cotton seed were bright in color the method of their adulteration seems to have been somewhat puzzling. Professor Rawls has been carefully investigating and has made the analysis of the adulterated sample referred to and of pure meal as follows:

	Adulterated Sample, per cent.	Pure Meal per cent.
Ammonia	5.10	9.11
Ash	4.33	5.92
Oil	14.75	14.25
Crude fibre, in oil free, dry state.....	18.25	7.80

It is thus seen that the adulterant is rich in cellulose and contains less ash than the pure meal. The assumption is that the sample in question was adulterated with finely ground corn cobs. He reports that cotton seed meal from Memphis has been found to be more frequently adulterated than others, but this does not necessarily include all the cotton seed meal coming from Memphis.

The sugar planters and other cultivators of Louisiana are so largely interested in the purity of the cotton seed meal they buy that they will appreciate the value of these investigations made by Professor Rawls in Florida, and they will do well if they insist on the proper guarantees as to the ammonia contained in all cotton seed meal they buy.

Foreign Sugars and Export Bounties.

WEST POINT, Mass., December 22, 1897.

Editor Louisiana Planter: Foreign nations that have a capacity of production of any leading article of commerce in general demand for consumption, not only sufficient for home consumption, but in excess thereof, seek a market in this country, which is in some degree dependent on foreign productions for an adequate supply of certain articles of necessity, principal among which is the article of sugar, of which nearly 70 pounds per capita (of foreign and domestic) is now annually consumed in the United States. In the year ended June 30, last, the imports of sugar were (B. of S. reports), of raw sugars, 4,719,769,564 pounds,

or 2,107,040 tons of 2240 pounds; of refined sugars above 16 D. S., 199,136,169 pounds, or 88,900 tons; total importations of sugar, 4,918,905,733 pounds, or 2,195,940 tons of 2240 pounds; total foreign cost of imported sugar for the year named, \$99,066,181; of this amount about \$38,600,000 went to foreign beet sugar producers, who are aided by a system of export bounties paid by their governments.

Without entering into general details it is enough for present purposes to take for example the German bounty method of trying to control the market of this country after gobbling the London market; it is reported that Baron Thielman, secretary of the German Treasury, in his speech presenting the budget to the reichstag recently, said: "The role America played in the sugar question resembled that of a pike in a carp pond, and the Dingley tariff increased the necessity for the carp to combine against the common enemy," which means that America has no right to protect her own sugar producing industries by a countervail duty equal to the German export bounty on sugar, and should quietly permit that country to destroy our sugar producing industries after the manner that the sugar refineries of Great Britain have been and the West Indies are being ruined by free sugars and the bounty system of Germany and other beet sugar producing countries of Europe.

The German carp has been ahead of the pike hitherto. Of the above importations for the year named, Germany sent to this country over 700,000 tons of sugar, of which 674,733 tons, or 1,511,401,968 pounds received a bounty of 27 cents per 100 pounds, or some \$4,081,000, about \$6.05 per ton, while the refined above 16 D. S. sugar sent us by Germany received 38 cents bounty on each 100 pounds exported to this country in the year named. Germany sent us 13,647,775 pounds of refined above 16 D. S. beet sugar in the month of June alone, on which an export bounty of 38 cents per 100 pounds was received as drawback by the exporters. In the same year named, Belgium, France, Austria, Netherlands, etc., exported to this country, in the aggregate, 314,661,787 pounds of beet sugar on which more or less export bounty was paid. Congress has tackled the sugar bounty system of Europe in a business like manner, effectually protecting our sugar producers and the revenue from unfair competition, without affecting consumers.

Baron Von Thielman also said in the speech referred to, that "The abolition of the sugar bounties could only be a gain to Germany, and he was glad to inform the house that the latest negotiations opened in this direction promised a more successful issue." A dispatch from Berlin the 18th instant, to the *New York Sun*, states that France is not disposed to modify the existing export sugar bounty system. When Germany finds that this country means business, and that nothing is gained by depleting her treasury and forcing her consumers to pay two or three times as much for sugar as consumers in this country and Great Britain pay, then and not until then will the German government abolish the export bounties. When forced to do this, as she will be, there will be "gain" in home consumption, with reasonable limit to production.

Regarding rebates on exports of sugar, official reports to Parliament say, "The gist of the matter is, that the majority of the people and legislatures think that the benefits which, in their opinion, accrue to the agricultural, industrial and shipping interests of the country, by the development of the beet sugar industry, more than counterbalance any injury from the export bounties granted." (Reports to Parliament, 1862, 1885, 1887): M. Thiers was urged by English emissaries in 1874, 1875, to abolish French bounties on exports of sugar; he replied, "Never, never will I grant you that, as it is the French industries you wish to destroy and the English industries you ask me to protect." The same replies in substance have been made to all applications for the abolition of European bounties on exports of sugar. The application of a countervailing duty by this country is the only proper remedy.

This country has perfect right to protect its own industries and revenues. Germany carries protection as to sugar to an excess unknown in this country; having established her beet-sugar industry at fabulous cost, it has reached the summit of its greatness, and if limited to reasonable production will remain a permanent industry of great value. To accomplish this she virtually prohibited importations of sugar and curtailed home consumption almost to prohibition of sugar food to her people at large, who can not afford to pay the prices charged to consumers. She has taxed the beets and the manufactured article in order to raise the money to pay bounties on exports. It ill becomes that nation to attempt to dictate the industrial and tariff policy of this country in the matter of sugar, or to lose her temper because Congress levies countervail duties to protect our industries and revenue, instead of merely talking about it.

Great Britain has been the greatest sufferer from abolishing sugar duties and from the beet sugar bounty system, her sugar refineries, once the most numerous and extensive known, have been crippled and the cheaper sugar that is sold to her consumers is no compensation for the loss to her refining industries. Her West Indies, where the sugar industry is the leading and almost the sole industry, are nearly ruined from these causes and will be wholly so unless the mother country takes action and levies countervailing duties. Prior to May, 1870, England levied duties on sugar as follows: On refined, per cwt. (112 lbs.), 12s.; on first class, 11s. 3d.; on second class, 10s. 6d.; on third class, 9s. 7d.; on fourth class, 8s. These rates were reduced in May, 1870, to 6s., 5s. 8d., 5s. 3d., 4s. 9d., 4s. respectively. These rates were reduced to 3s., 2s. 10d., 2s. 8d., 2s. 5d., 2s., and in 1874 the duty on sugar was abolished.

It was reasonably expected that by importing raw sugar duty free for refining, England would monopolize the refining trade and control this and other sugar markets. The beet sugar crop of Europe continued to increase, and with it the exports of beet sugar and the bounty system soon began to interfere with the refining industry in Great Britain. In 1867 only 633,000 tons of beet sugar were produced; in 1880 the production of beet sugar had risen to 1,774,545 tons, and was 4,917,840 tons in 1897. Thus England suffered by free trade in sugar, and the German carp long since captured the London sugar market and crippled the refining and West Indies sugar producing industries of Great Britain; instead of countervailing the bounties the government of Great Britain ordered conventions and parliamentary investigations; issued reports and solicited the beet sugar countries to abolish the bounties, year after year, with the specific remedy of countervailing duties at hand, a remedy that means death to beet sugar export bounties, and, as applied by Congress, it means protection to American sugar producing industries, to consumers of sugar, and to the revenues of this country.

HENRY A. BROWN.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: The weather bureau treated us very shabbily for Christmas, giving us about the worst spell of the season in which to enjoy the holiday, but the people of Ascension made the best of it, as they endeavor to do with everything, and the weather was about the only gloomy thing perceptible among us during the period commemorative of the birth of the Savior and typical of the Heaven-sent message of "Peace on earth, good will to man." This week the signal service seems bent upon making up for last week's misbehavior, however, as the weather conditions at the present writing are extremely seasonable and pleasant.

The only Ascension sugar factories that have not yet completed the work of the grinding season are the Palo Alto of Messrs. Bernard Lemann & Bro., on Bayou Lafourche; Belle Helene, Hermitage and the Miles Company's Houmas Central, on the east bank of the Mississippi, and of these four, two, and possibly three, will have closed their labors by the time this reaches the reader's eye, unless some unforeseen obstacle arises to delay the expected culmination. Word has just reached me that cane cutting was finished at Hermitage to-day (Wednesday), and Houmas Central and Palo Alto are very near the stopping point. Belle Helene is said to have ten days' grinding yet in prospect, a main cause of the length of the campaign there having been the unusual number of mishaps and delays experienced early in the season. Stella wound up to-day and is accredited with an output of about 1,225,000 pounds.

The output of the Houmas Central is going to be much larger than was generally anticipated at the beginning of the grinding. Approximately 47,000 tons of cane will be ground there, from which, in round figures, 8,000,000 pounds of sugar will be made. This estimate is believed to be well on the safe side, and it is more than probable that when the complete record is made up New Hope's big average of 172 pounds per ton will be equaled and possibly excelled by the company's "Big House." The St. James and Armand factories, of the Miles Company, in St. James parish, have turned out something in excess of 6,000,000 pounds of sugar, and adding this to Houmas Central's 8,000,000, and New Hope's 4,000,000 and several hundred odd thousands, and we have a total product to the credit of the Miles Company of about 18,500,000 pounds, against some 22,000,000 pounds last year. The opinion has been expressed in my hearing that this year's crop has been more profitable to the company than that of 1896, notwithstanding the latter was the larger of the two, and in all probability this is the fact.

Manager J. Elphege LeBlanc and his crew, at Belle Terre, reached the home base on Wednesday of last week, having handled 19,670½ tons of cane, which gave a sugar product of 3,047,000, an average only a fraction short of 155 pounds per ton of cane. Of the cane total, Belle Terre produced 9048 tons; the ad-

joining Crescent place, 5682½ tons, and the remainder was purchased by Messrs. Lemann from small farmers in the vicinity.

Peytavin ground its last cane Christmas eve and finished boiling off on Tuesday, having shut down on Christmas and Sunday. Up to the 20th inst. Peytavin's mill had crushed 13,392 tons of cane, yielding 2,119,000 pounds of sugar, an average of nearly 159 pounds per ton, and in next week's letter I shall be able to give the completed report for the season. The place has probably never made a better record. Manager W. C. Hanson and his efficient associates have been the recipient of many well-deserved compliments and congratulations upon their success.

Palo Alto had ground 23,270 tons of cane up to the 19th inst., and reported a sugar product of 3,725,000 pounds at that date. Her total for the season will go well above 4,000,000 pounds.

Another place to exceed all its previous records this season is Mr. Walter I. Barton's Riverside, where the work of grinding was concluded on the 17th inst., with an aggregate of 1,563,000 pounds of sugar.

The fine Salsburg factory, of Messrs. Lebermuth & Israel, in St. James, got through on the 22d inst., having obtained 4,151,679 pounds of sugar from 25,055 tons of cane, or nearly 166 pounds per ton.

Belle Alliance, in upper Assumption, is to get through in time to celebrate New Year's in the enjoyment of freedom from grinding afflictions, and while no figures are as yet available from there, it is an open secret that glit-edge results are being obtained.

Next Tuesday will be A. B. S. P. A. day, and there ought to be a quorum of the membership mustered for that occasion.

That THE PLANTER and all its readers may enjoy a rich meed of happiness and prosperity during the coming new year is the earnest wish of

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The threatening weather reported last week terminated in a rain which began Friday morning and continued for more than twenty-four hours without interruption. The work of rolling has been made more difficult, owing to the manner in which the roads have been cut up. The yield, however, is very satisfactory, and the planters who are yet grinding have no complaints to make. Labor is plentiful and prices good. No work of any consequence has been done in the fields where rolling is over, but the weather has been bright and clear for two days, and, with prospects of it holding up, many are expecting to start planting in a few days. The fall plant is still coming up, while in places the stubbles mark the row beautifully. We may expect more cold, however, and the forward cane may not be the best by any means.

Everybody in the upper part of the parish has finished rolling, except Mr. R. G. Comeaux and Mr. F. D. Robertson. At the lower end of the parish nearly all the big guns are still firing away.

It was reported here a few weeks ago that

the molasses from O. K. centrifugal sugar had been worked over into sugar successfully and advantageously in one of the Ascension sugar houses. Mr. Rudolph G. Comeaux, of Mayflower, tried the experiment, but finds that it pays better to sell the molasses. Mayflower will be in the toils till next Tuesday, barring accidents, and the result will be 1,000,000, perhaps a few pounds more or less.

A light locomotive, made by H. K. Porter & Co., of Pittsburg, Pa., was added to the Catherine plantation outfit, of the J. Supple's Sons Planting and Manufacturing Company, Limited, lately, and is proving a great help. Last week Catherine dried out 410,000 pounds of sugar, and the yield per ton is now playing around the 170 mark.

Mr. Christopher Devall, of Plaquemine has accepted the position of manager on Mr. E. M. Lefebvre's Eliza plantation. If he does not succeed in selling his Mespilus place he will rent it out. Although small, Mespilus has made quite a record under Mr. Devall's management, the profits, over and above household expenses, paying for the place in eight years.

The Messrs. Robertson Bros., of Hunter's Lodge, made 2200 barrels of syrup this season.

The public roads on the river have got to be in a terrible condition and it is fortunate that no crops are now at their mercy. If the planters would take a greater interest in the road question and let several in each ward contract to work and care for a few miles, there is no doubt that without a loss to anybody the parish would have at all times first-rate roads.

There has been a great demand for molasses barrels this year and the shops and factories at Plaquemine have sold completely out.

Work is progressing favorably on the new levee in front of Mr. M. Hanlon's Eureka plantation and also at Plaquemine. As the old levee at the latter place is taken to make the new, the work can not go up too fast.

The material for the steel drawbridge across Bayou Plaquemine at Plaquemine has arrived, and the work of erection will shortly begin.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: While the weather during the past few days has been perfect, the rains of the preceding week put the plantation roads in such condition that the delivery of cane to the mills has been seriously interfered with. From Monday, the 20th, to the 27th inst., Old Sol was completely obscured, more or less rain falling during the week. The plantation roads were none too good several weeks ago, but this last bad spell naturally made them much worse than they had been. On one of the large plantations here hauling has been almost impossible during the past week. Four strong mules, hitched to a cart, are scarcely able to reach the factory with less than a half load of cane. The proprietor is well-nigh at his wits' ends, but as he has very little cane left to grind, his troubles will soon be over. Last Monday the sun came out and has shone gloriously since then, but a

southeast wind to-day admonishes us that more rain is close at hand.

That veteran planter, V. Comeaux, Esq., of Cleanwood plantation, was in Port Allen to-day, and expressed himself as being well pleased with his crop. Mr. Comeaux reports that all the planters in the extreme lower portion of the parish are on the homestretch, and will probably have crushed their last cane when this screed appears in print.

Eliza and New Hope, the properties of Mr. E. M. Lefebvre, are winding up the fag ends of what have turned out to be fairly good crops. The results at Senator V. M. Lefebvre's Australian plantation are somewhat disappointing, as they do not equal those of last year.

Hon. Aug. Levert's crop is reported quite satisfactory. In addition to his own crop, Mr. Levert purchases a large quantity of cane of small farmers in the neighborhood, who receive the highest market prices for their product. The enhanced value of sugar has been a great boon to the small planters, who have received better prices for their cane this year than for several years past, and who are hopefully looking forward to the future. Some of them expect to get \$1 per cent. next year. The growers who sell their cane to the Baton Rouge sugar factory are said to obtain a better price for their product than the other "tonnage growers" in this section, as they average about \$3.50 per ton.

A defect in the "Lillies" having been cured, Cinclare is now doing splendid work, crushing some 800 tons of cane per day. This magnificent factory has yet to grind some 4000 or 5000 tons of home crop, to say nothing of considerable bought cane, and will, therefore, run well into January.

In point of output, Poplar Grove will be a close second to Cinclare. The plantation crop has been quite satisfactory, while the crops of the small planters who sell their cane to this excellent factory have done very well this year, as is attested by their satisfied demeanor. Throughout the entire season, Mr. Sam Hill, who presides at the vacuum pan, has turned out sugar that brings top-o'-market prices. Poplar Grove will probably finish about the 10th or 15th.

Smithfield and Orange Grove will be running several weeks longer; Catherine is winding up. Just as these lines are being penned the loud blowing of the whistle announces that the last cane of the crop of '97 has gone through the mill at Homestead.

So far as can be learned, there has been no deterioration of the cane on any of the plantations in this parish. Immediately after the freeze of December 5 those planters who had much cane to grind promptly windrowed. The cane thus put down has kept perfectly, no complaints as to its condition being heard in any quarter. This is in a measure accounted for by reason of the fact that, although more or less rain has fallen since then, the temperature has been quite low.

Tuesday a frost was visible; Wednesday morning a heavier frost and some ice were in evidence.

Mr. Geo. Hill has been on the sick list this

week, but is reported somewhat better at this writing.

As yet there are no indications that managerial changes will be unusually numerous this year in
WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The weather for the past week has been such as to vex the heart alike of planter and of drummer, as the gray, leaden skies have ushered in but a gloomy Christmas season, while the condition of the roads owing to a surfeit of precipitation and a minimum degree of sunshine has been such as make travel a wear, both of horse flesh and human spirits. A recent trip to Westfield found that house temporarily suspended as far the milling department was concerned, due to an accident to the bagasse carrier shaft. Possibly it had become tired from the press of work done the week previous when over a thousand tons were ground, a record exceeding by a few tons, we are told, the output of Elm Hall for the same space of time. The crusher does its work wonderfully well, and all are delighted with the new carrier feeder in successful operation here. They had at that date about twelve thousand tons more to put through its capacious maw. An interview with Mr. Richl disclosed the fact that his new carrier feeder had been operated with very gratifying results for two weeks on Nellie. With so many active minds searching for a way that will feed the carrier economically, and at the same time with regularity, success is bound to follow within a few years at the outside.

The recent decided and gratifying advance in the price of sugar will greatly stimulate all interested in this industry, and we predict that another year will see very extensive additions to the numerous houses in the way of larger and more modern machinery. Our planters may as well make up their minds now to prepare for competition with the beet sugar industry that will soon be an acknowledged factor in fixing the price of sugar here. The bounty enabled our planters to meet the low prices that confronted after its repeal, and so now it is but a matter of foresight for them to take advantage of the better prices that are almost sure to obtain for the next three or four seasons, so that by improved methods they will be able to meet the sharper competition that is almost sure to be in store for them in the future, even if not within the immediate future.

Grinding is about over, and on some places some ploughing was done preparatory to planting last week. Rosedale is still grinding and is making a remarkably good crop. Rosedale will not fall far short of a thousand hogsheads, if it does not pass that mark, the best crop that has ever been made on the place; quite a feather in the caps of the young planters who have managed it with so much acumen. Of the vacuum pan houses, Oakley, Little Texas, Woodlawn, Nellie and Sweet Home and perhaps one or two others have finished their season's work, with the exception of drying seconds. As a rule, the crops will fall short of last season, due to the

dry weather. Magnolia has also finished, making a crop of a million and a half. Mr. and Mrs. Carroll Barton will leave this week to spend some time in New Orleans. Messrs. Clarence Barton and W. T. Jones were down last week for a day or two.

We hear that Mr. Mire, of Madewood, will engage in the business of raising cane by the ton another year, in the vicinity of Whitecastle.

We hear of but few changes among the fraternity of managers.

We do not like to speak of the public roads, as there is some doubt as to whether there are any left. As to the existence of mudholes there can be but one opinion, and that a decidedly affirmative one.

We feel intensely the need of a railroad when, as at present, the roads are in such a terrible state, and the Lafourche is so low as to prevent the navigation of the stream by the smallest passenger craft. Let us trust, as Santa Claus failed to bring it with his reindeer, that perhaps (if we are good children) the new year may leave it with us. MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: As the old year wanes the campaign is drawing to a close, but will extend further into the new year with some than was at one time expected, as the output will be larger than was anticipated when the grinding began.

Rains at intervals have somewhat retarded progress, yet as an entirety the harvesting season has been propitious, particularly when compared with that of twenty years ago, and vividly remembered by the majority of those who were financially interested in sugar manufacture in the State.

The latter part of last week was cold and wet, and as Christmas was on Saturday some of the factories closed down Friday night and resumed operations on Monday morning. This season has proved the necessity of railroads where large quantities of cane must be annually delivered at any one point. Some complaints are heard of the cane sprouting at the eyes, but the recent cool weather will arrest vegetation, for the time being at least, and as the weather is usually cold at this time of the year but little injury will accrue from that source until the end of the campaign.

As fuel bills on many places have been unusually large, factory owners will, prior to the commencement of another campaign, investigate and remedy some of the existing defects and economize heat more effectually than in the past.

Sugars have appreciated in value and the present outlook will justify improvements in milling and boiler plants, the latter being very necessary to decrease the cost of production.

The campaign ended at the Island of Cuba, of Mr. Levi, last week, and at Southdown, of Mr. H. C. Minor, Tuesday night; at Ellendale, of Mr. Ed. McCollom, it will probably be brought to a close at the end of the week or early the week following; also at Belle Farm, of Mr. C. W. Bocage, and at the Lower Terrebonne refinery, of Messrs. Bush & Maginnis.

It will be prolonged later at Ashland, of Messrs. Calluet & Maginnis; at Honduras, of Messrs. Shaffer & Morrison; at Ardoyne, of the Messrs. Shaffer Bros.; perhaps at Crescent Farm, the Shaffer estate; Poverty Flat, of Messrs. McCollom & Cocke; Belle Grove, of Mr. James McBride, and at Greenwood, of Mr. Thos. Casey, where a broken shaft will cause some delay.

Wednesday of last week, cloudy and cold; Thursday, threatening; Friday, rain during the day and at night; Saturday, bleak and cold, with rain; Sunday, gloomy and disagreeable; Monday, fine; Tuesday, heavy frost and fair during the day; Wednesday morning, bright, with heavy frost. TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The ending up of the year 1897 has, without doubt, surpassed any other part of the year for rainy, rough, disagreeable weather. We have had considerable rainy weather since the first of September, but that part of it that covers the time from the 20th to the 26th of December wins by two lengths, to say nothing about the mud that was boosting it along to success. On the 20th of this month it began raining, and continued both day and night till the 26th. It first started with a drizzle, which thoroughly saturated every inch of road, and it being near Christmas times, there was, of course, more than an ordinary amount of travel. which cut the roads up and put them in a condition to receive a flood that was to follow soon. The flood came, and to-day the roads in this parish are almost impassable along the public highway where the road is generally passable during the worst weather that we commonly have—the axles of vehicles actually drag on the mud—in fact, both weather and roads have been scandalous, so to speak, here of late, but the sun has blessed us with his shining face, and the sky is clear once more.

Cane hauling along the railroad is finished up entirely and everybody who was fortunate enough to have cane to ship is satisfied both with price obtained and treatment received from the refineries. The Caffery and Libby & Blouin are to be complimented for the fair, square deal accorded the small farmers along the I. & V. Railway in this parish. The contract at first was to pay them on a sliding basis of 80 cents per cent., based upon the price of prime yellow sugars on New Orleans market, and in addition to this they were to pay them a bonus of 50 cents per ton to help defray expenses for freights, which is 67 cents per ton from the I. & V. road to the Caffery, and \$1 per ton to the refinery of Libby & Blouin, but in a previous arrangement Libby & Blouin had assumed the difference between the rate to the Caffery and their plant, which practically made the rate even 67 cents to either place from the shipper's standpoint. All cane along the line was contracted for under the above conditions, but just before delivering season opened they voluntarily offered to better their own offer and pay the farmer 80 cents, as was originally agreed upon, and in addition to pay his freight, derrick fees

and expense of weighing at the different loading stations; in other words, 80 cents net. In the original contract it was specially stipulated that the cane was to be settled for according to the weights at the respective refineries to which this cane might be shipped; but to the great surprise of the shippers the refineries announced a few days ago that they would settle by the weights taken at the loading station, which means a considerable gain over the weights at the mill. It is easy to see that cane, even in bulk, will lose a great deal in transit of a hundred miles from stealage, lossage and shrinkage. All this proves that those gentlemen are out to do the right thing by the shipper regardless of what previous arrangements might have existed. They will be in the field next year for cane and there is not a doubt but that they will get it.

Christmas passed off very quietly here, and everybody is now looking forward to a New Year. As this will be the last time that I will visit you in the shape of news during the year 1897, I will make my bow and wish THE LOUISIANA PLANTER, its editor, its devils, and all connected with it, together with theirs, a happy and prosperous New Year. May you all live long and prosper. P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: It has been quite a while since a spell of weather like the one which has just passed off has been witnessed in this country. It began to rain here on the 17th instant, the clouds hanging low and dark, with the rain falling almost continuously up to the evening of the 26th.

One can hardly imagine how wet and boggy the ground has come to be after so much rain. The public roads are almost impassable. Those who have not finished hauling cane from their fields have had to abandon all attempts to move cane until the weather so changes and dries off the surface that it will better support wagons and teams.

I understand that there is yet considerable cane in Rapides parish awaiting shipment to market, but the weather has thrown everything out of joint, to the great detriment and delay to all who have a heavy tonnage of cane to ship out to some central factory.

There is not a doubt but that the majority of the cane growers living in this upper country would have finished their respective cane harvests earlier had it not been that quarantine regulations prevented the various central sugar factories to which cane had been engaged from starting as early in the season as they otherwise would have done.

But if it is possible to get a week or ten days of anything like fair weather, I am of the opinion that all who may now have cane to ship will finally succeed in getting it out and off to market. Good weather is now in demand. Both the planters and farmers are anxious to get out and make a start toward doing something or other.

The cane planters, in particular, have an abundance of work before them, and it may be truly said that he who has good drainage is a lucky man, when the seasons are unusually

wet, as this month has been since it set in.

If the weather should prove propitious during January a most decided rush will be made to plant cane as fast as the soil can be properly prepared.

From all accounts and as far as is now known seed cane is in a perfectly sound, healthy state of preservation.

THE PLANTER'S scribe has been informed that Mr. E. V. Weems, having been engaged for some years past planting on the Teche, will return to Rapides in 1898, and take charge of his Chetwood sugar factory, the time having expired for which the factory was leased to the late Jos. H. Meeker.

Rumors are still afloat relative to building a sugar factory at or near Alexandria. The business men of Alexandria have no doubt about come to the conclusion that the cane and sugar industry of Louisiana has now become a fixed fact, and will no longer feel averse to the employment of their influence and capital in a manner to promote the cane industry by building an up-to-date sugar factory.

New lines of railroad now projected, and soon to be built in the three parishes of Avoyelles, Rapides and St. Landry, will open up new markets and a new and widely extended area to profitable cane planting.

Cotton can no longer claim to rule as king. To-day we need and want only such crops as cane, pease, corn, hay, oats, fruits and vegetables.

But, of cotton, let it pass into history, as the indigo fields of Louisiana have done. On the morning of the 28th the sun rose bright and clear. A light frost covered the ground.

ERIN.

St. James.

[Special Correspondence.]

Editor Louisiana Planter: Pluvius claimed the most part of last week for his own, leaving this part of the globe steeped in dampness, seriously affecting the otherwise smooth progress of the grinding campaign, but since last Monday Sol rules the weather. Vigorous work in field and factory is going on. The public thoroughfares are unutterably utter; the deep dust which once existed has been converted into waxy mud, tenacious as bird lime. Previous to the last downpour, the latter grievance was being overcome, the sunny spell having macadamized all roads. Several planters managed to loudly give the signal of the final part of the task for 1897, thus affording the opportunity of taking the annual Christmas dinner with an unoccupied mind, and doing justice to the turkey, which is usually the chief entree upon such an occasion.

Owing to the extreme dampness of the elements there was a lack of fireworks and other juvenile demonstrations usually displayed on Christmas eve. That faithful, diligent indispensable adjunct of the sugar industry (son of a donkey though he be), the plantation cart mule, seemed to revel in the above weather conditions, for upon all such conditions he is frequently treated to a day or so off duty, and when he is the recipient of the favor he may be found in squads, wallowing luxuriously in mud pools left by the recent rain.

His companion, the teamster, is likewise happy; has money in both pockets, and even in his habitual vocal melody gives evidence of "a change come o'er the spirit of his dream."

A few weeks ago, "I'm prayin for dem sinners in my heart," was generally the lugubrious burden of his song. Now "Climbin up de golden stairs in dese golden slippers, Alle-lulah!" and "All coons look alike to me," and such cheerful melodies are the vesper "hymns" which one hears as the gangs from the field return to quarters after a day of toil. Happy people and glorious country and precious, bountiful agricultural industry where such conditions exist and fructify, and may the wet blanket of political expediency never come in contact with this same industry to dampen the social and commercial aspects of the region which must rise or fall as sugar fluctuates.

Some exceedingly provoking accidents have happened to certain factories which had only had a few more tons left to masticate. St. James was the victim of a broken roller shaft, with only 300 tons of cane left to grind. Armant came to her assistance and successfully manufactured the rest of the crop and closed the campaign last Thursday. We will give results of the three above crops in our next report.

An evil spirit seems to hover over Pike's Peak. After overcoming a multitude of breaks in the beginning of the season, several smooth runs were made, but ten days ago a broken shaft changed the even tenor of things, with about half of the crop still standing. After a delay of several days said shaft was received last Sunday night on a special car.

Oak Alley, of Messrs. "Sobral & Tucker, has furnished a fair quota of breaks to the recorder of accidents. After grinding 7000 tons of cane a fractured spur-wheel impeded a further progress of the process. After a suspension of work for five days steam was again put up, but was not kept up more than a few hours, when a return plate gave the order to stop.

The hasty sale of Bonsecour plantation, of Messrs. Folse, Pugh & Co., was somewhat of a surprise. It was effected over a week ago, Mr. F. Graugnard, of Sidney plantation, being the purchaser, paying \$53,000. As the two places adjoin, Bonsecour will prove a handsome annex to Sidney.

We are grieved to chronicle the death of Mrs. I. Morse, in Kansas. We extend our heartfelt sympathies to her husband, the expert chemist of Armant and St. James factories.

We wish all the readers of THE PLANTER a happy New Year. ST. JAMES.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: This week's weather has been quite a surprise to a great many so-called "foretellers." Some predicted good weather for only a day or so, others foretelling the continuation of same, according to some signs on which they based their predictions. The sunny days we are now enjoying are of an unsurpassed brightness. After almost two weeks of incessant rain the temperature has fallen considerably, without causing

any injury whatever, and it seems as if the prevailing fair weather we are now enjoying has come to stay. This is a real godsend to the planters who have not yet terminated.

Grinding still continues on a few plantations, and in some places will last longer than was really expected. We hear of some planters having yet over a month's work before terminating. We are told that the majority of the planters are satisfied with the results.

Now that the end of the year has come and we are beginning a new one, many of our planters are planning different things for the coming season. Some are looking forward to the building of new factories where there are none, or where too great repairs to the old sugar houses would be necessary. Others expect to purchase new plantations and increase their crops; still others are about to put up the latest improvements and extensive repairs to their already modern plants. A good many planters expect to engage in rice culture this coming season and rice lands are greatly in demand, some to be rented, others to be bought, thus proving that there is some money to be made in the culture of this cereal.

A part of the sugar house on St. Rose plantation of Messrs. Rolling & McFarland (Convent postoffice) was destroyed by fire, communicated by trash burnt near by, but as the house is of the "old-time" style and is not used to grind the crop, the loss did not prove of much consequence.

The Belmont crevasse, which has hitherto been a mere forest inhabited by tramps and malefactors, is now being sold out by lots to different parties who are building up their tracts of land, and this place will shortly be a well populated settlement.

Daily newcomers who have been away during the grinding season are arriving from their work, and soon St. James will again unite all her absent ones.

The best wishes for a Happy New Year accompany this communication from your scribe, CONVENT.

Rapides.

Home Place refinery, with a capacity of 700 tons daily, is situated two miles below town, on Bayou Boeuf. The Texas & Pacific Railroad runs just back of the mill and side tracks and spurs facilitate the handling of cane while the box cars are loaded with sugar inside the building. A flag station and postoffice have been secured during the present year and the place is known to the world as "Meeker," in honor of the late lamented proprietor, Hon. Joseph H. Meeker.

Coco Bend refinery, the property of Mr. E. V. Weems, but run under a lease by the Meeker estate, is one mile above town, on the beautiful Chetwood plantation. It grinds 500 tons of cane daily with ease. The refinery was constructed under the supervision of Mr. W. P. Marsh and has always been kept up to a high standard of perfection under each consecutive management.

Mr. R. Storm, a learned engineer and a gentlemen skilled in the higher mechanics, as well as being familiar with scientific sugar making in all its details, supervised the construction of

Home Place refinery, and now has charge of both the mills named. The sugar produced by the Meeker estate is of high grade and in much demand by dealers.

Mr. F. G. Drouet, son-in-law of the late Hon. Jos. H. Meeker, will succeed to the proprietorship of the estate. Nature has qualified few to follow such a man, but those who know Mr. Drouet will join us in saying the mantle, as it were, has fallen on one most worthy.—*Lecompte Messenger*.

Trade Notes.

The Lidgerwood Hoisting Engines.—We note that the Southern agency of the Lidgerwood Manufacturing Company, New York, builders of the Lidgerwood hoisting engines, cableways and conveying devices for contractors and others, has been placed with the firm of Woodward, Wight & Co., limited, New Orleans, La.

With this connection and Mr. J. H. Dickinson as their engineer in charge of all specifications and orders, the Lidgerwood Company insure to its customers good service from an engineering standpoint and the prompt and satisfactory filling of all orders entrusted to its care.

Eastwick Crystallizer.—In the present issue of THE PLANTER will be found the advertisement of the Eastwick Crystallizer, an apparatus for the crystallization of sugar in movement which has been designed by Mr. Edw. P. Eastwick, Jr., especially to meet the requirements of cane sugar houses. Mr. Eastwick has for some time been experimenting with the object of adapting this system of crystallization to the sugar houses of Louisiana, and at the same time to design an apparatus which would be cheaper in construction and work with less power than similar apparatus which are now in use in the beet factories in this country and abroad. One of Mr. Eastwick's crystallizers has been in constant operation during the present season at Messrs. Levert & Harrell's Beka sugar house, and has proved a marked success. The apparatus, which is equally well adapted for beet factories, is now placed on the market for the first time, and the advantages claimed for it over other apparatus are: Reduced cost, less power required for operating and the ease with which it is kept clean. Mr. W. L. Dearborn, No. 407 Hennen Building, is the representative of Mr. Eastwick, in New Orleans, and the Whitney Iron Works Company, New Orleans, are the manufacturers of the apparatus for Louisiana and Texas.

Mr. D. H. Walsh guided the Union plantation of Hon. A. H. Gay through the vicissitudes of the recent campaign with the same skill and success with which he has distinguished himself on many previous occasions. Mr. Charles Hagelsweide, the well-known vacuum-pan sugar boiler, had charge of that department on Union, and ran it to the Queen's taste.

Mr. Benj. H. Pring, of the Onelda plantation, in St. James parish, was registered at the St. Charles Hotel last Wednesday.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, December 11, 1897.

Editor Louisiana Planter: The weather is almost taking a backward course; the more the season advances toward winter the more it is exhibiting a purely autumnal character. This, however, not in a genial, bracing manner, but by way of bleak, sluggish and rather mild days, so that nothing reminds us of approaching Christmas, the idea of which is absolutely connected with ice and snow. While most disagreeable to men, the weather has been also very unfavorable to the keeping of the beets stacked in silos, and, as a matter of course, the deterioration of them is complained of by a great many factories. The effect of the unseasonable weather is now put in evidence also by the statistics of production, which show that the yield which up to the end of October was ahead of last year's by about 0.20 per cent. is now only better by 0.10 per cent. There has been now, as usually at this time, the official estimate of the beet crop published, and according to it a quantity of 13,679,761 tons may be expected. Based on the present rate of yield the latter might be calculated at 12.76 per cent., and this would lead to the assumption of a production, if we take the beet crop in round figures, at 13,700,000 tons, and adding the estimated outturn of the molasses working establishments at 97,000 tons, of 1,845,000 tons, whilst the estimates of the fabricants is only 1,805,000 tons. You see that my objections to the exaggerated estimates of the German crop issued at the commencement of the campaign were well founded, and as crop of 1896-97 is now definitively set down with 1,821,000 tons, it is also clearly proved that, as I said from the beginning, this year's crop would not largely differ from last year's. The revised estimates of the statistical union give for the other countries the following figures: Austria, 836,540 tons; France, 779,800 tons; Belgium, 231,000 tons; Holland, 118,800 tons; Russia, 740,000 tons; Sweden, 86,000 tons. The weather in those countries has been, so far as reports are to hand, more or less similar to that described above, but in the great majority of them the campaign is on the point of being finished and no great harm can now be done.

The bounty question is emerging now more definitely on the surface of sugar-political discussions. Our secretary of finance has declared in the Reichstag that, Austria having provided for a countervailing duty, the countries paying bounties have opened negotiations with a view to abolish or diminish them, and our daily papers say that an agreement even with refractory France would be not improbable. There is, of course, a long way still from such initiatory steps to actual measures, but if, indeed, the powers should arrive at some palpable result, the United States or their sugar producers would not be better off than previous to their new tariff, for all sugar countries would try to regain the lost ground without bounties and without countervailing duties, so that perhaps your sugar planters will

awake to the fact that it might have been better if your legislation had left the bounties alone.

It is not probable that the German government in their present session will make any material change with regard to sugar legislation, although many complaints are uttered against the present law, the principal reason being that in spite of the legal limitation of production (contingent) there is still an increase of outturn, which, as I believe I have pointed out formerly, is raised by the awkward manner in which the mode of contingent is provided for, inasmuch as the average of the two highest crops of the last three is taken as the basis of the contingent allowed to every factory. It is obvious that everybody will endeavor to get in the future a contingent as high as possible, and therefore is practically prescribed from reducing his sowings, although the sugar produced in excess of the contingent is excluded from receiving any bounty. Against these provisions the attacks are justly directed, but as remarked already it is not probable that the present Reichstag, whose term, besides, is ending with the present session, will take any action in the matter. On the other hand, the Parliament will be called upon to take steps with regard to saccharine, the competitor to sugar, to which latterly I have on different occasions called your attention. The German Imperial government has been repeatedly asked to levy a duty on that sweet as on sugar, the consumption of which is certainly not favored by the tax of 20 marks for 100 kilos. But now a formal motion has been submitted by members of the Reichstag to put a stop to this advantage enjoyed by a product whose sanitary value is doubtful, whilst sugar is now recognized as one of the most wholesome substances existing. This motion in question proposes to levy a tax on saccharine at the rate of 80 marks per kilo., which means that as the stuff is proclaimed to be 400 times sweeter than the best refined sugar, it shall pay a corresponding duty. There are, besides, some more of these chemical products sold as sweets, such as dulcine, sykose and sugarin, but of all these combined, 34,682 kilog. have been produced last year in four factories now existing in Germany, which is equal to 13,873 tons of sugar. It will be interesting to note what attitude will be taken by our legislative powers with regard to this subject. There is by the way no doubt that if the saccharine had been taxed from the outset with an adequate amount of duty, the production now causing so much uneasiness to the sugar trade would not have reached the proportions it has gained actually.

A combination of twenty sugar factories formed in the northeastern part of Germany last year for the purpose of obtaining a better price for their molasses has proved a real success. Recently the molasses of the society has been sold for the period of six consecutive years at most satisfactory conditions, the buyer being a molasses working sugar factory, which pays a certain fixed price and a share of its profit to the sellers.

The markets were fluctuating last week and the advance obtained at one time could not be fully maintained, the weakening toward the

close being caused by offerings on next campaign at a low price, which makes buyers of actual sugars more cautious and depresses prices of the latter. The price of actual 88 per cent. sugar closes at Magdeburg at 9.80-9.82 marks, and delivery December is quoted at Hamburg at 9.02½ marks. Refined showed moderate business at about unchanged prices.

ROBERT HENNIG.

Barbados.

The weather record of the past fortnight is somewhat varied. On Saturday, 13th, we had from the southeast a smart blow of wind. Fortunately it did not last long, but long enough to lay forward canes flat on the ground. In some districts its effects were more marked than in others. In St. George's parish, curiously enough, it paid special attention to a small but very lovely and vigorous spot of Burke's canes growing in a sheltered place, uprooting and laying them low. On the whole the damage done by the gale was slight and limited, and, had there been rain immediately after, would have been appreciable. The following week was, however, hot and rainless, but the current week has made full amends, for, although there has been no heavy downpour, there have been frequent showers and a constant dripping, the rainfall for the week averaging from 1½ to 2 inches. While the weather appearances promise a continuance of the genial showers, wanted not only for the growing crop, but for the plants which will soon be put in, a good planting season is an economical need, for our plantations annually spend—we may almost say waste—a good deal of money in the purchase of plants that do not grow, all for the want of seasonable weather, to say nothing of the eternal expense and worry of perpetual supplying and re-planting.

The seasonable showers of the week are a boon indeed, and their continuance in every way desirable. Some estates have already commenced planting on a small scale, but the cane plant season can hardly be said to have really begun; there has only been just a little waking up in this direction preparatory to the activities of December. It is a moot question, is early or late planting best for varieties? Certainly, those planted in February seem to bunch more freely and to flower less, while on the other hand the early planted ripen soonest and therefore afford ratoons a larger period of growth. But dependent as we are on the clouds in all our agricultural operations, he is perhaps the wisest man who plants with the showers. We have more than once drawn attention to the mania which exists in our island for destroying trees, careless of the beauty which they give to the landscape, and of the influence which they exercise on the rainfall. Strange to say while we have denuded the hill sides, and other places in the country districts suitable to tree-growths—blind and deaf to our own economical interests—we have converted Bridgetown into a woodland town, the most noticeable feature of which in the distance is the thick foliage with which it is beautified. It is matter of constant observation that rain clouds passing over southern parishes

frequently refrain from emptying their fatness on the dry and thirsty cane lands beneath, but make straight for the Bridgetown trees, cling to them with a loving attraction, and water them freely, much to the annoyance of young gentlemen who office-pent are looking forward to a dry evening for cricket or tennis; the lesson is obvious, and such an object lesson should not be neglected.

We are dependent on rainfall for very existence, and should do all in our power to increase it; lands unfitted for agriculture ought to be planted at regular distances in trees of economical value—they would not injure sour grass—would afford shelter to grazing oxen, and be of twofold economical value. A few hundred casuarina, fustic or mahogany trees on barren lands, now valuable only to the taxgatherer, would in these times be a perfect little bank, and means of salvation to many a struggling proprietor, and be of incalculable benefit to the sugar cane for whose sake they have been so wantonly and ignorantly destroyed.

It is too soon to venture on crop prognostications. Most planters seem to think that the yield will equal that of last year, but with continuance of growing weather will probably surpass it; the ratoons, it is true, are not very forward, but are on the whole green and bunchy, and only require a regular supply of rain water. As we remarked in our last the canes have not bloomed so densely into flower as last year, and ought therefore to be expending their energies more usefully in gathering saccharine. On the whole the prospects of yield are as good if not better than those of last year.—*Agricultural Reporter*, November 27.

Sugar House Repairs in Hawaii.

Repairing sugar mill. This seemingly simple operation is thought by many engineers to require more care and better judgment than what is required to put in place new machinery. Indeed some engineers do not take into consideration or account the latter at all, as it is known almost to a certainty just how long a time it will take to do the work. In repairing old machinery it is a different thing, and no one can tell, in that case, how much there is to do, or how long it will take to do it, until everything has been examined. It is a good idea, I think, to examine everything about the mill, and not take it for granted that because a machine is apparently running all right it is all right. On the contrary, it is perhaps getting into a condition for a so-called accident, which, by timely attention, might have been avoided. There is much of the mechanism of the machinery that is out of sight, while the machinery is in motion, and hence every opportunity should be taken when the mill is shut down to thoroughly examine these parts. One often finds old machinery in such a bad condition that it is a difficult question to decide just what should be done with it. No engineer likes to throw an old machine out of use if he can possibly avoid it, not alone for the cost of replacing it with other machinery, but for the reason that it seems, from the care he has taken of it, and the effort he has made

to make it do its duties under favorable and adverse circumstances, that it now seems like something more than a mere machine to him, and he hates to part with it.

But whatever it is decided to do it pays to do it in an exact and thorough manner. Engines, I find, need lining up once in a while, for what with the wear and tear, the settling of foundations, and other causes, engines frequently get out of line, and when such is the case the friction is increased tenfold. I have found engines where nothing was in line with the cylinder, and though this is an exceptional case, there is almost always enough out of true to pay for the trouble. The same may be said of the three-roller mills, for I have found mills in which none of the rollers were in line with each other, or with the shafting, and in consequence never run well, or did good work; but this is an exception, for most of the mills out here are well taken care of and set true. However, they show the need of keeping a watch on them and the need to frequently adjust them. Shafting, too, if of any great length, needs frequent attention, for there is nothing that I know of that is so liable to get out of line. Pumps are, however, the machines that are the most frequently out of order, and need the most care and attention. It is a little singular that in this advanced stage of the world no really good piston packing can be found in the market that can stand any length of time, if the water that is to be pumped exceeds 200 deg. F., and for this reason I now use metallic packing in all the feed pumps.

Pumps are the mules among machinery, and they have done more kicking than all the rest of the machinery put together, but this is not always the fault of the pumps, for I rarely find them kicking unless there is something to kick for. If we want a pump to do perfect work, it must be kept in perfect condition, and though this is not always easy to do, it must nevertheless be done. If the valves are faced up every year and every part kept true and in good condition, there will not be much trouble, for it is the little disarrangements which almost always cause the trouble and which are often overlooked.

But of the various machines, apparatus, etc., around the mill, there are none that requires so much good treatment as the steam boilers, because the slightest defect in them may result in disaster. It is not only necessary to keep them clean inside and out, to keep the water clean, and all joints and connections tight, but they should be tested once in a while as well. It is also sometimes necessary to use something to neutralize the bad effect of impure water, and I have just learned from a friend in the West Indies that tri-sodium phosphate is one of the best things in the world for certain kinds of impure water.

I may also say, in passing, that I have just tried a new Anti-Friction Metal, with such good results that I think the information would be useful. I tried this metal in a bearing that could not be kept cool by any means, except by constantly running water on it, and from the start it has run beautifully and cool, and not given a moment's

trouble. One good property of it is that it will adhere to almost anything.

We are also trying a new kind of piston rod packing, which is giving good results."

GEO. OSBORNE.

Kukui, Hawaii, H. I., November 20, 1897.

Dr. Julius Koebig on Hawaiian Annexation.

SAN FRANCISCO, December 23, 1897.

Editor Louisiana Planter: The question of annexation of the Hawaiian islands now before Congress is of the greatest importance to the interests of our American sugar industry, both cane and beet sugar. The sugar trust, the American beet sugar manufacturers and also the senators of your State, I believe, have put themselves on record against annexation. What then is the proper standpoint of the cane and beet planters to take?

I have given the matter a great deal of thought, since I have for many years past been an enthusiastic advocate of the development of our home sugar production. It appears to me that our planters' interest can only be materially benefited by annexation. I know from personal investigation on the islands that the principal features of the prosperity of the island sugar planters are cheap Asiatic contract labor on the plantations and the duty-free admission of the Hawaiian sugar.

If the islands should be annexed the supply of contract labor would be immediately stopped. The planters would have to employ free labor and gradually Asiatic labor would become scarcer. This will undoubtedly result in a considerable raise in the price of labor, even if the intense agitation against Asiatic labor now prevailing in the United States would not be at once transplanted to the islands. Thus the Hawaiian planters would be more and more put on an even footing with the present and future American sugar planters, which is all the latter can fairly ask for. In their competition with American home manufacturers of sugar the Hawaiians unquestionably have the unfair advantage of the exemption from tariff duties and the protection of the Hawaiian government in the maintenance of the contract labor system.

Under the present reciprocity treaty or under the proposed protectorate about 10 per cent. of the American consumption of sugar is and would be imported at prices much below the cost of sugar imported from other foreign countries than Hawaii. On the other hand, the healthy development of our home production is materially handicapped because this cheap Hawaiian sugar remains a constant danger in the hands of the powerful operators of the sugar market. Therefore, in the interest of our American sugar industry, urge all sugar planters to demand the annexation of the Hawaiian Islands, since we can not hope for the abrogation of the most unjust and one-sided reciprocity treaty. I fear not for our American cane or beet sugar planters if they are called upon to compete with Hawaii under equal taxation and equal conditions of the labor market.

DR. JULIUS KOEBIG.

Chino, California.

The beet harvest of 1897 on the Chino ranch commenced on July 19. Only about 200 tons per day were harvested, however, until about September 1, when the orders were gradually increased, and by October 1 the Chino farmers were delivering about 700 tons per day.

On October 14, 1.08 inches of rain fell, jeopardizing the condition of 23,360 tons of beets then in the fields. The farmers immediately commenced ploughing out, topping and piling as fast as men could be gotten to do the work. Contrary to the fears, however, the rainy weather did not continue through the late fall weeks, it turning very dry and warm. The effect was to wilt and reduce the weight of the beets in piles. The sugar percentage increased somewhat, but the purity thereafter ran very low. While the farmers succeeded in getting their beets all harvested, the expense of handling them was increased by reason of the piling, and a considerable weight was lost. On the other hand, the factory had considerable trouble for a time in diffusing wilted and tough cossettes and in treating juices of low purity.

On the whole, however, the crop of 1897 was the largest ever raised on the Chino ranch, both as to acres and tons. There were 5330 acres of good stand at commencement of harvest, and 50,634 tons net were harvested.

For the following statement of the crop on the Chino ranch, as well as for many favors during the season, we are indebted to Mr. John Gould, book-keeper for the Beet Growers' Union:

AMOUNT HARVESTED.

	Gross.	Pounds	Tare.
July.....	3,624,180		122,390
August.....	11,792,810		339,440
September.....	25,963,380		705,180
October.....	30,873,500		1,813,700
November.....	29,156,470		2,425,720
December.....	5,838,320		564,060
Total.....	107,248,669		5,970,490

	Net.	Net tons.	Payment.
July.....	3,501,790	1,751	\$7,589 31
August.....	11,453,370	5,727	24,444 24
September.....	25,258,200	12,629	51,945 42
October.....	29,059,800	14,530	57,688 72
November.....	26,730,750	13,365	57,513 72
December.....	5,274,260	2,637	11,679 64
Total.....	101,278,170	50,639	\$210,861 05

MONTHLY AVERAGES.

	Sugar Per ct.	Purity Per ct.	Tare Per ct.	Price.
July.....	15.4	79.9	3.38	\$4 33
August.....	15.0	79.7	2.90	4 26
September.....	14.4	79.1	2.72	4 11
October.....	13.9	79.3	5.87	3 96
November.....	15.2	76.9	8.31	4 30
December.....	15.5	76.3	9.66	4 42
Averages.....	14.9	78.5	5.47	\$4 23

—Champion, December 24.

Watsonville, California.

Up to 6 A. M. December 22, 1897, the Watsonville mill of the Western Beet Sugar Company had siloed 107,041 tons of beets, had made 14,324 tons of sugar and had run 2400 hours.

Alamitos mill is being doubled in capacity and will work 700 tons of beets per day next season. Seven thousand acres will be planted to beets on the Los Alamitos and Los Cerritos ranches. The machinery in the mill is all made in the United States.

Prof. Paul G. Sukey contributes an article to THE LOUISIANA PLANTER recommending a method (originated in Germany, but, as far as we know, not used there to any great extent) of purchasing beets in which both sugar and purity are used to determine the value. The sugar is multiplied by the purity, and a coefficient of value is thus established. This method of purchasing beets, Professor Sukey states, would make contracts fair and equitable.

We have had considerable experience in making beet contracts during the past ten years, and we agree with the learned professor that the method he recommends, if also based on a sliding scale of sugar values as suggested in an editorial of THE LOUISIANA PLANTER, would be as nearly perfection as we could arrive at. For ourselves we would like to see such a plan adopted, and when every beet farmer shall be as highly educated as Professor Sukey we shall buy our beets that way. But the hard knocks of experience have taught us that if you would have a steady supply of beets, which is the first factor in the successful conduct of a factory, you must offer to the farmer a plain, simple contract, whose terms are expressed in language understandable of the common people, whom it is said the Lord must love since he made so many of them. The farmer knows nothing of and cares nothing for such things as "purity and coefficient;" he is suspicious of their introduction into a contract, and this suspicion will disturb the harmonious feeling that should be established between the factory and the producers of raw material. To get what it wants from the farmer, it must offer to the farmer something that he wants, and just now the farmer wants a flat price, with no percentage of sugar or coefficient of purity trimmings.—Pajaronian, December 23.

Eddy, New Mexico.

The sugar factory commenced slicing beets again Monday morning and is now busily engaged converting them into sugar. There is a supply in the sheds for seven days' run, and it will be added to, but the greater part of the crop is harvested, and the campaign will in all probability close some time between the first and middle of January. Sugar shipments are averaging one car a day. Dr. Callenbeck, employed as chemist, retired from the employ of the company this week, returning to Sheboygan, Wisconsin, Tuesday. He is succeeded by E. Niall Skeats.—Pecos Valley Argus, December 24.

Grand Island, Nebraska.

The management of the sugar factory gives out the statement that instead of two weeks more the factory will in all probability run up to the edge of Christmas, there being still more beets than they had calculated on. Last year the factory closed down on beets the 28th of

December. This year, if it runs to Christmas, the campaign will have lasted just about a month longer, as it began that much earlier.

In that connection the following figures will be of interest:

In 1890 there were produced 736,000 pounds of sugar from 5000 tons of beets, for which the farmers were paid \$20,000.

In 1891, 1,400,000 pounds from 11,500 tons of beets, for which the farmers were paid \$46,000.

In 1892, 2,110,000 pounds from 13,000 tons of beets, for which the farmers were paid \$52,000.

In 1893, 1,835,000 pounds from 12,000 tons of beets, for which the farmers were paid \$48,000.

In 1894, beets shipped to Norfolk, 14,000 tons, for which the farmers were paid \$70,000.

In 1895, 3,000,000 pounds from 20,000 tons of beets, for which the farmers were paid \$130,000.

In 1896, 5,000,000 pounds from 35,000 tons of beets, for which the farmers were paid \$175,000.

This year the amount of sugar manufactured will be about 6,500,000 pounds from at least 42,000 tons of beets.—Grand Island Independent.

Sugar Factory Incorporated.

About 11 o'clock Thursday night the articles of incorporation of the Ogden beet sugar factory were filed in the county clerk's office, the \$50,000, being 10 per cent. of the capital stock, having been paid in early in the evening. Messrs. Dee, Rolapp and Pingree were sworn as the necessary three stockholders who, under the law, must subscribe to the articles before filing. The filing of these articles will enrich the State treasury by several hundred dollars.—Lehi (Utah) Banner, December 21.

Beet Sugar Industry in Nebraska.

As an old practical European expert I have personally no interest whatsoever whether or not the group California-New Mexico or the group Nebraska-Utah is of greater promise as a sugar producing district. I am only interested so far that the beet sugar industry will prosper with the best results in the United States. You may classify me, therefore, to be entirely impartial and unbiased, although being accidentally a resident of Nebraska, and you will undoubtedly follow the maxim of equal rights to all, not wishing to inflict an injustice to the farmers and business men of Nebraska by possibly a one-sided presumption of your informant.

I wish to state that I had more than thirty years of practical experience in the line of beet sugar industry in Europe. Besides this, I have been for years a correspondent of the Viennese imperial meteorological central bureau, and as such I studied the weather observations in Europe carefully.

After this introduction, I request you to give space in your highly instructive and esteemed publication to the short correction; for it is not so much what your informant does say in conclusion of the article about the beet culture in Nebraska as what may be deduced therefrom between the lines by diligent reading capitalists or investors.

The American beet sugar industry is at present a topic of more than ordinary interest, for it means an important development of our rich agricultural resources to the lasting benefit of the whole country. In weighing the possibilities of different localities for beet culture, it is absolutely necessary to observe fairness and correctness in the assertions. If it is said in the said article on the subject, "to sum up, therefore, the future of the industry in California and New Mexico is quite rosy; in Nebraska and Utah it is somewhat problematical, though by no means dark," then it seems that the last inference is somewhat hasty, because there have been working with the best results beet sugar factories in Nebraska.

Comparisons between the European meteorological observations and those of the United States Weather Bureau for the Nebraska eastern and center sections (furnished by Mr. G. A. Loveland, section director) show that the normal annual precipitation, 25.6 inches the average for the last twenty years in east Nebraska*, has been decidedly about one inch more for beet culture in the two eastern sections and in the central section of the State than the normal annual precipitation in the principal beet districts of Germany and of the Bohemian and Moravian parts of Austria. The average annual temperature in these three sections of Nebraska (48.6 deg.) is about 4 to 5 deg. F. higher, and therefore somewhat more unfavorable than in the German and Austrian beet districts, but this seems to be neutralized by the better soil and by the significant fact that in Nebraska (ill-reputed for so-called deficiency in moisture) 67 per cent. of the yearly precipitation has fallen, during the twenty years of official observations, in the period of vegetation, in the months from April to August inclusively. The maturing period of the beets extends very far into October. A better slowing can not be made by any European beet-growing district, hardly as good a one by any one of them. The mistaken idea that Nebraska must be devoid of sufficient moisture for beet culture seems to be traceable to the exceptionally dry years 1893, 1894 and 1895, remembered by all the people in the United States as the years of the great drought, and perhaps to the fact that the arid western part of the State has been taken as a criterion for the whole commonwealth.

The reports of the Weather Bureau are easily obtainable and ought to be made the basis of all such deliberations, for they are the only reliable source of information on subjects in regard to this new industry. A study of these reports bearing on the climatic conditions of the eastern half of Nebraska will convince every unbiased observer that these conditions are most favorable for the successful development of the beet sugar industry. Essential tests, quality and quantity, of beets grown in the State, in the existing sugar factories have proved this to be the case beyond any doubt or negation.—*Sarkander, in Scientific American, Omaha, Neb., December, 1897.*

Dr. H. J. Sanders, of St. Mary parish, was a guest of the Hotel Royal during the past week.

Another Utah Sugar Factory Assured.

It seems now fully assured that La Grande will have a beet sugar factory.

The final effort in the way of securing the required subsidy was made at the mass meeting of citizens held Saturday night. Just four days previous the subsidy was \$30,000 short. Twenty thousand dollars had been raised up to Saturday evening, and when the call for subscriptions was made nearly \$6500 was added to the list. At this juncture Mr. J. M. Church stated that arrangements had been made whereby the balance would be provided for, and the meeting went wild with enthusiasm.

A telegram was sent Sunday morning to David Eccles, the representative of the Utah capitalists, to come and complete the signing of the contracts.

When this preliminary is attended to the word may be sent throughout the length and breadth of the land that Grand Ronde valley will have a sugar factory.—*Baker City Democrat.*

Sugar Cane vs. Sugar Beets.

There has been a great deal of interest shown throughout the country in the beet sugar industry, and experiments have been made by the Department of Agriculture to determine the best region for raising sugar beets; so much interest has been taken in it that it is probable that within a few years enough sugar will be made in this country to supply all our needs and some to spare. Several small articles have appeared in the *Farmer and Fruit Grower* that indicate that the question of the adaptability of sugar beets to Florida has been discussed.

This is surprising—for sugar cane is raised all over the State in a small way by farmers, and according to the reports of the Secretary of Agriculture, more sugar can be made on the poor sandy pine lands of Florida at less cost than can be made from beets on the best farming lands of this or any other country, so that it would appear that the sugar beet is not needed in Florida. In proof of this it will be well to give facts and figures in regard to the productiveness of both sugar cane and sugar beets in this country and in Europe.

The report of the Secretary of Agriculture for 1891 gives the yield of beets per acre, and the average content of sugar in the beets of three countries of Europe and of the experiment station at Schuyler, Neb.:

	Tons per acre.
Austria-Hungary	9.8
France	11.3
Germany	13.8
Schuyler, Neb	21.07

Content of sugar in the beets:

	Per cent. of sugar
Austria-Hungary	11.02
France	11.61
Germany	12.35
Schuyler, Neb	13.08

The report of 1892 gives the yield of beets at Schuyler, Neb., as 15.8 and the content of sugar 15 per cent., and 1893 it was fourteen tons per acre and content of sugar was 15 per cent.

In regard to the high yield of beets per acre at Schuyler, Neb., it must be remembered,

that the soil was virgin soil of great fertility, taking the country at large the average yield would not be over twelve or thirteen tons per acre, and the average content of sugar in beets raised from seed sent out by the agricultural department and the beets analyzed by the department was 12 per cent. of sugar.

The analyses of beets at the experimental station at Schuyler was taken at the time of the greatest content of sugar in the beet. In actual practice it is not possible to harvest all the beets at such a time, therefore the yield of sugar is much larger than could be obtained in actual practice.

Now for sugar cane. The report of the Secretary of Agriculture for 1892 gives the result of experiments in raising sugar cane at Runnymede, Florida. On the sandy pine land the product was twelve tons per acre with a sugar content of 12.4 per cent. of 93 per cent. of purity, and in 1893 the yield was twelve tons and the sugar content was 19.5 per cent. The report adds that such cane would, when manufactured into sugar by the best modern processes, yield from 250 to 260 pounds per ton of cane. The experiment at Runnymede of raising cane on the recently drained muck lands was not a success, but there is plenty of land other than the high pine land on which sugar cane can be raised, and by the application of fertilizers a much larger tonnage can be produced on the sandy pine lands.

The farmers individually can not use the modern processes of manufacturing sugar, on account of the large amount of capital it would require, but if factories were started on the plan of the beet sugar factories—that is, the farmers raise the cane and sell to the factory at such price as they could agree on, a price that would be profitable to both, it would be a great help to the farming interest of the State. At present, the farmer who makes sugar from cane and uses the old process, no doubt loses about one-half of the sugar actually in the cane; this would be mostly saved by modern processes.

A sugar cane factory would have a decided advantage over a beet sugar factory. First, as it costs the farmer less to raise cane than it does to raise beets, they would be able to sell to the factory at lower price per ton than is paid for beets by the beet sugar factories; second, there is a higher percentage of sugar in the cane than there is in the beets, which would make it more profitable to the manufacturer of cane sugar. The raising of beets is very much like market gardening, and the cost is high, while the cost of raising cane is but little more than the cost of raising corn.

The cost of raising one acre of beets at Schuyler, Neb., according to the report of the Secretary of Agriculture for 1892, was \$43.78, with labor at twelve and a half cents per hour; that includes the cost of ploughing, planting, cultivating and harvesting, but does not include cost of hauling to factory or rent of land, the cost of hauling was fifty cents a ton and the product was sold to the factory at \$4 a ton.

What would our Florida farmers think of getting \$4 per ton for sugar cane?

The question of sugar cane factories should be brought to the attention of capitalists who would like to invest in a paying industry and also to the farmers who now raise a small quantity of sugar cane, but who might by joining together start a factory and thus receive all the benefit of the industry.—*Isaac Jarrett, in Florida Farmer.*

The Indirect Benefits Resulting from the Erection of the Watsonville, (Cal.) Beet Sugar Factory.

Mr. Alfred Holman, editor of the *Pacific Rural Press*, recently visited the Spreckels beet sugar factory at Watsonville, Cal., and gave the whole subject matter very careful consideration, and in his journal, the *Pacific Rural Press*, he has given an account of the many improvements in and about Watsonville and in the Pajaro valley directly traceable to the beet sugar factory. Mr. Holman says:

Very recently the writer spent some days at and about Watsonville under such guidance as allowed him to see both the inside and the outside of things—to study the beet sugar industry from the different standpoints of the beet grower, the sugar maker and the local man of general affairs. Particular attention was given to the question—What are the effects of this industry upon community life?—and what follows reports the observation and the judgment of the writer as to this question.

Prior to 1887, the year of the movement by which the sugar factory was secured, the general conditions prevailing in the Pajaro valley were practically identical with those of similar agricultural districts along the California seaboard. A notable richness of soil, abundant water and an equable coast climate were the special merits of the situation, but they did not serve to give the Pajaro farmers any great advantage over the tillers of other fertile districts. * * * There was no notably large development of any industry, and no chance to do much in any line of production requiring careful handling and prompt dispatch, since the facilities for railroad shipment were irregular and discouraging to enterprise. At this time the population of Watsonville was about 2000 and that of the valley about 5000. For a long time these figures had not much changed, for under the conditions which then existed there was neither work nor wages for greater numbers.

The effects of the new enterprise were first felt in the town rather than in the country. The permanent staff of "the mill"—some fifty or more men of a well-paid class, with their families—made a marked addition in the local population, stimulating to every department of community life. Close upon this came the activities essential for the equipment of the country for a new form of agricultural production. New tools, more and stronger wagons, more and better horses, new harness—all these demands were reflected in the prosperity of the storekeeper, the wagon maker, the blacksmith, the house builder, the stock dealer—and all along the lines of local trade and industry. Immediately—even before the factory was half built—the town began to "pick up" within and extend without—and this movement made work and wages for new hands, attracted useful settlers, and still further animated local business. When the mill started up, in 1888, there was another call for labor; and here again was a new resource in the growth and maintenance of the town.

Watsonville stands a little removed from the Southern Pacific main freight and passenger line—a circumstance of some embarrassment both in the dispatch and delivery of freight. In former times, per consequence, all shipments had to be made from the station of Pajaro, some distance from the central point, where facilities were limited and the movement of freight cars uncertain. Under these conditions traffic was limited to staples like wheat, hops and potatoes; for, since here was no way to ship promptly and

certainly, there was no use to grow perishable crops for export. The conditions in this regard were revolutionized by the sugar enterprise. The necessities of the factory for receiving and sending freight were too great to be neglected, and from the day the factory turned out its first barrel of sugar until now no point in California has been better provided with shipping facilities than Watsonville. There is no greater stimulus to local industry than a regular and prompt system of transportation for products to the outside world—and for this Watsonville and the Pajaro valley is indebted to the sugar factory. It would be hard to overestimate the value of this change in the later development of the town and valley.

It has helped to bring into existence whole systems of agricultural, orchard and gardening industries, of which we shall speak later; and it is directly to be credited with securing for Watsonville the manufacturing business of the Loma Prieta Company, with its well paid working force of fifty or more men. As the capacity of the factory was increased, it became necessary to go beyond the limits of the valley for beets. The first call was made upon the Salinas farmers, some twenty miles away; and to bring up this new supply the factory management built a narrow gauge line of railroad connecting the two valleys and incidentally giving to both a point of water shipment at Moss Landing. The value of this last named facility has been very great, since by opening a competing sea route to the San Francisco market, it has been the means of large saving in transportation charges.

The soil of Pajaro valley is good for pretty much every reasonable human purpose except road-making. The quality and depth which make fine crops of grain, beets, beans, potatoes, etc., are precisely the causes why in former times the roads were execrable—broken and muddy in winter and dusty in summer. This was the condition when the sugar beet industry struck the country; and it was very soon found that beets could not be moved economically over such highways. With the cost of teams, feed, and of wages even, it became an easy job in mental arithmetic to calculate the advantage of making and maintaining smooth highways; and to-day no part of California has a better system of roads, winter and summer, than the Pajaro valley. Here, again, must the sugar industry be thanked.

The necessities of beet growing and harvesting make in every locality a special set of requirements. The appliances and tools used in Europe, in Nebraska, and even in other parts of California, were found to be imperfectly adapted to conditions as they exist at Watsonville, and this fact has been a great stimulant to inventive enterprise. Numberless devices, great and small, have grown out of the special conditions, the community. In a sense, having devised and forged its own instruments of industry. This is a matter of greater importance than would appear at casual glance, since it has been the means of organizing local manufacture in a small way; and it deserves special mention in any review of conditions wrought by the sugar industry.

There are many other ways in which the influence in the sugar beet may be traced in its relation to the community life of the Pajaro valley—very notably its labor conditions—but this writing has already grown too long, and these aspects of the theme must be reserved for another week.

But it must be added, with reference to what has already been said, that a visitor who knew Watsonville prior to ten years ago, and who returns to it to-day, is struck with pleasing surprises at every stage of his progress about the town. He finds a town population grown from two to nearly four thousand. He is informed that in the valley there has been a corresponding growth, and that the population has advanced from five to approximately eight thousand. He sees the business of the town very generally housed in structures of brick

and stone, in place of the old time wooden structures. He sees animation and spirit in every aspect of the place, and easily determines that it is a well-to-do and prosperous community. He is told—for the people are not unmindful of their advantages and cherish a pardonable pride in their prosperity—that there has been no hard times in Watsonville. If he will examine the records he will find that during the past five years not an acre of beet land has passed under the hammer of the sheriff. And the general cause of all this—the source of these unusual and prosperous conditions—is ten years' experience of the sugar industry.

Trade Notes.

American Copper, Brass and Iron Works.

—The establishment has been located in Chicago since 1867, at which time it was first inaugurated. In 1890 the present company was incorporated under the laws of Illinois, and under the management of Mr. Otto Meinhansen, and a competent corps of assistants, it has built up an enviable reputation. It furnishes constant employment to 150 to 200 men, and is known from Canada to Mexico as a concern that executes its contracts promptly and well. They have fitted out, and supplied the machinery for, many of the largest and best breweries, distilleries and glucose factories in the United States, their specialties consisting of brewery equipments, vacuum apparatus, sugar and glucose machinery of every nature, and general copper, sheet-iron and machinery work. They are now about to increase their capital stock to \$250,000, and erect new and larger works, equipped with special machinery and the most improved modern appliances, so as to enable them to still better accommodate the trade, giving particular attention to the manufacture of beet sugar and cane sugar machinery. They are prepared to contract for complete plants or any part thereof, and have secured the services of some of the best engineers in Europe and America, under the superintendency of Mr. Jacob Neuert, formerly with the Kilby Manufacturing Company, of Cleveland, Ohio, who is well known in Louisiana and in the beet sugar districts.

The Deane of Holyoke Steam Pumps.

—THE LOUISIANA PLANTER has recently received from the Deane Pump Company their handsome catalogue, giving illustrations, descriptions and prices of the many kinds of pumping machinery made by this well-known establishment, and specially of the various pumps made by the Deane Steam Pump Company for sugar house work.

Messrs. Hauptman & Loeb, 222 S. Peters street, New Orleans, are the Southern agents for the Deane Steam Pump Company, and the many sugar planters who will be engaged in improving and enlarging their sugar houses during the coming season will do well to consider the pumps in their contemplated improvements.

Mr. C. A. Benscoter, assistant general passenger agent of the Southern Railway, with headquarters at Chattanooga, who is one of the best posted and withal most genial and popular men in the railroad business, was in the city during the past week, accompanied by his charming wife, stopping at the St. Charles

JANUARY 1.

WEEKLY MARKET REPORT.

1898.

		December 25.	December 27.	December 28.	December 29.	December 30.	December 31.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.	
SUGAR.										
Open Kettle.										
Choice	Holiday.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Quiet.	
Strict Prime.....		3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	2 3/4 @ 2 1/2		
Prime		3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	2 3/4 @ 2 1/2		
Fully Fair		3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	2 3/4 @ 2 1/2		
Good Fair.....		3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	2 3/4 @ 2 1/2		
Fair		3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	2 3/4 @ 2 1/2		
Good Common		2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 2 1/2		
Common		2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 2 1/2		
Inferior	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	— @ 2 1/4		
Centrifugal.										
Plant'n Granulated..	Holiday.	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	3 3/4 @ 3 3/4	Very strong.	
Off Granulated.....		4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	3 3/4 @ 3 3/4		
Choice White.....		4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	3 3/4 @ 3 3/4		
Off White		4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	4 3/4 @ 4 3/4	3 3/4 @ 3 3/4		
Gray White		4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	3 3/4 @ 3 3/4		
Choice Yellow.....		4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	3 3/4 @ 3 3/4		
Prime Yellow		4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	3 3/4 @ 3 3/4		
Good Yellow		3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4		
Seconds	2 3/4 @ 3 3/4	2 3/4 @ 3 3/4	2 3/4 @ 3 3/4	2 3/4 @ 3 3/4	2 3/4 @ 3 3/4	2 3/4 @ 3 3/4	2 3/4 @ 3 3/4	2 3/4 @ 3 3/4		
MOLASSES.										
Open Kettle.										
Fancy	Holiday.	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 20	Strong.	
Choice		25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	18 @ 19		
Strict Prime.....		22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	18 @ 19		
Good Prime		19 @ 20	19 @ 20	19 @ 20	19 @ 20	19 @ 20	19 @ 20	17 @ 17		
Prime		17 @ 18	17 @ 18	17 @ 18	17 @ 18	17 @ 18	17 @ 18	16 @ 16		
Good Fair.....		— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	14 @ 15		
Fair		— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	14 @ 15		
Good Common		— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	12 @ 12		
Common	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	11 @ 11	Strong.		
Inferior	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	10 @ 10			
Centrifugal.										
Fancy	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	10 @ 10		Strong.	
Choice	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	9 @ 9			
Strict Prime.....	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	8 @ 8			
Good Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	8 @ 8			
Prime	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	7 @ 7			
Good Fair.....	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	6 @ 6			
Fair	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	5 @ 5			
Good Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	4 @ 4	Steady.		
Common	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	4 @ 4			
Inferior	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	4 @ 4			
SYRUP.										
		15 @ 21	15 @ 21	15 @ 21	15 @ 21	15 @ 21	15 @ 21	12 @ 16		

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 89	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Very strong.
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.10 @ —	4.10 @ —	
Standard A	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	3.98 @ —	3.98 @ —	
Cuba, 96°, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50°	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	Holiday.	11s. 4½d.	11s. 4½d.	11s. 4½d.	11s. 4½d.	11s. 8d.	11s. 8d.	Firm. Steady.
A. & G. Beet		9s. 7½d.	9s. 6d.	9s. 6d.	9s. 6½d.	9s. 1½d.	9s. 1½d.	

NEW ORLEANS REFINED

Cut Loaf	Holiday.	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 4.53	Strong.
Powdered.....		— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 4.53	
Standard Granula'd		— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 4	
Candy A		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C		— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 3¾	
Crystal Extra C.....		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C.		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP			— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Dec. 22	Tons	278,159
At four ports of Great Britain to	Dec. 18	"	78,500
At Havana and Matanzas to	Dec. 23	"	8,150

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING DEC. 31, 1897.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	1,259	76,711	8,014
Sold	1,259	68,104	8,014

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1896, TO DEC. 31, 1897.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	11,668	941,670	134,889
Sold	11,668	776,799	134,889
Received same time last year	12,053	918,828	160,176

JANUARY 1.

WEEKLY MARKET REPORT.

1898

RICE.	Dec. 25.	Dec. 27.	Dec. 28.	Dec. 29.	Dec. 30.	Dec. 31.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....		— @ —	— @ —	— @ —	— @ —	— @ —	2 00 @ 4 00	Dull.
CLEAN, Fancy.....		5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 6	
Choice.....		5 @ 5 $\frac{1}{2}$	5 @ 5 $\frac{1}{2}$	5 @ 5 $\frac{1}{2}$	5 @ 5 $\frac{1}{2}$	5 @ 5 $\frac{1}{2}$	5 @ 5 $\frac{1}{2}$	
Prime.....		4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 5	
Good.....		4 $\frac{1}{4}$ @ 4 $\frac{1}{4}$	4 $\frac{1}{4}$ @ 4 $\frac{1}{4}$	4 $\frac{1}{4}$ @ 4 $\frac{1}{4}$	4 $\frac{1}{4}$ @ 4 $\frac{1}{4}$	4 $\frac{1}{4}$ @ 4 $\frac{1}{4}$	4 $\frac{1}{4}$ @ 4 $\frac{1}{4}$	
Fair.....		4 @ 4 $\frac{1}{4}$	4 @ 4 $\frac{1}{4}$	4 @ 4 $\frac{1}{4}$	4 @ 4 $\frac{1}{4}$	4 @ 4 $\frac{1}{4}$	4 @ 4 $\frac{1}{4}$	
Ordinary.....		3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 3 $\frac{1}{2}$	
Common.....		3 $\frac{1}{4}$ @ 3 $\frac{1}{4}$	3 $\frac{1}{4}$ @ 3 $\frac{1}{4}$	3 $\frac{1}{4}$ @ 3 $\frac{1}{4}$	3 $\frac{1}{4}$ @ 3 $\frac{1}{4}$	3 $\frac{1}{4}$ @ 3 $\frac{1}{4}$	— @ —	
Inferior.....		Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....		2 @ 2 $\frac{1}{4}$	2 @ 2 $\frac{1}{4}$	2 @ 2 $\frac{1}{4}$	2 @ 2 $\frac{1}{4}$	2 @ 2 $\frac{1}{4}$	2 @ 2 $\frac{1}{4}$	
BRAN, $\frac{1}{2}$ ton.....		9 50 @ 10 50	9 50 @ 10 50	9 50 @ 10 50	9 50 @ 10 50	9 50 @ 10 50	9 00 @ 10 00	
POLISH, $\frac{1}{2}$ ton.....		15 00 @ —	15 00 @ —	15 00 @ —	15 00 @ —	15 00 @ —	16 00 @ 17 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING DEC. 31, 1897.

	SACKS ROUGH.	BELS. CLEAN.
Received.....	14,663	161
Sold.....	11,121	1,590

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO DEC.
31, 1897, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BELS. CLEAN.
This year.....	340,688	2,820
Last year.....	357,979	3,188

Sugar.

At the end of the week the sugar market was very strong and a good demand prevailed.

Molasses.

Molasses, both open kettle and centrifugal, was strong at the close of the week. Syrup was steady.

Rice.

Rough rice was dull at the end of the week, with hardly any inquiry. A moderate business was transacted in clean.

Sugar in London.

A semi-official announcement has been made in the daily press that a conference of England and the continental powers would probably be held to discuss the abolition of the sugar bounties. This has had a marked effect on prices, which were also favorably affected by a reduction of 80,000 tons in Licht's estimate of the beet crop. A less optimistic view of the position has, however, since been held on the favorable French yield, and prices have given way in some measure from lack of support from the trade, who are, naturally, disinclined to carry heavy stocks for the next week or two, when business will be almost at a standstill. The strength of the American markets and important reductions in their stocks continue to attract attention, and further efforts at reciprocity with France and Germany, as regards sugar duties, are reported. On the other hand, the Louisiana sugar crop is expected to be the largest on record, to which may be added a large proportion of the supplies from other cane-producing countries, such as Java, Cuba, Egypt and the West Indies. The beet crop in the States bids fair to be important within a few years. With the improvement in the market here more attention has been paid to cane kinds. Grocery sorts have been in much better demand, and the lower qualities have risen from 1 $\frac{1}{2}$ d. to 3d. per cwt. Medium

and fine sugars, however, which are now plentiful, are unchanged in value. The imports of crystallized raws to London for the week ending 16th inst. amounted to 126 tons, and for this year to 29,378 tons, against 51,542 tons in 1896.—*Produce Market Reviews*, December 18.

Trade Notes.

The Living Age.—The number of the *Living Age* for the week ending January 1 begins a new volume and a new year of that standard periodical. In this volume the striking serial story, "With all Her Heart," translated expressly for the *Living Age* from the French of Rene Bazin, will be continued until its completion. Its conclusion will be immediately followed by the publication of a new serial of unusual interest. In 1898 it enters, with renewed interest and vitality, its fifty-fifth year. During the year now closing it has widened its scope and enlarged its volumes, enriching its pages with choice selections from the works of the most able authors and men of affairs of Continental Europe, on subjects of intelligent and timely interest, and given in a monthly supplement extracts from leading American magazines and readings from new books, thus establishing its claims as the reflection of the whole world's living literature. The beginning of a volume is an excellent time for the beginning of a subscription, and the publishers still present to new subscribers for 1898 the eight numbers of 1897, containing the first instalments of "With all Her Heart." To every one who would keep abreast of the best thought of the time, the periodical is in fact almost a necessity. With fifty-two numbers aggregating 3500 large pages the subscription price, \$6, is low; while for \$9 the publishers offer to send any one of the \$4 American monthlies or weeklies with the *Living Age* for a year postpaid. The Living Age Company, Boston, are the publishers.

New Sugar Refineries.

Work upon the new refinery which Arbuckle Bros. are now erecting in Brooklyn is being pushed. This structure has been roofed and the machinery is being put into position. This machinery is of the most improved pat-

tern, and a good deal of it is of a peculiar kind necessary for the special packing of sugar in small packages, which are distributed by Arbuckle Bros. extensively in connection with their coffee trade. The refinery will have a capacity of about 4000 barrels a day, and it is reported in the trade that it will be in active operation by April or May.

The Doscher refinery is also being rapidly completed and will, it is understood, commence operations about the same time.—*N. Y. Journal Commerce*.

Personal.

Mr. B. A. Oxnard, of Adeline, was a guest of Col. Blakely's fine hotel a few days ago.

Mr. R. R. Barrow, a prominent sugar planter and business man, of Houma, was in New Orleans last Wednesday.

Col. Gus. A. Breaux and Mrs. Breaux registered at the Royal from Lafayette, La., last Tuesday.

Mr. J. Henry Putnam, of Abbeville, La., was a recent visitor to New Orleans. He registered at the Hotel Royal.

Mr. H. W. Barton and Mr. N. P. Barton, both of St. James parish, were guests of the Royal last Sunday.

Mr. J. C. Klos, a prominent planter, of Belle Helene, La., was in the city on a visit a few days ago. Mr. Klos made his headquarters at the Hotel Grunewald.

Capt. J. W. Barnett was registered at the St. Charles during the past week as usual.

Mr. T. P. Clinton, of St. Joseph, La., who has been identified with the chemical side of the sugar industry for several years, was a guest of the Denechaud last Wednesday.

Mr. H. T. Oxnard, of Nebraska, was a guest of the Cosmopolitan during the past week.

Hon. W. E. Howell, of Lafourche, was in town on Wednesday. Mr. Howell put up at the St. Charles as usual.

Gov. H. C. Warmoth, with Mr. F. S. Warmoth and Miss R. L. Warmoth, came up from Magnolia during the past week and registered at the St. Charles.

Messrs. L. E. Callery and F. A. Jacobs-hagen, of St. James parish, were in the city on a visit a few days ago, and during their stay were guests of the Cosmopolitan Hotel.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—POSITION AS ASSISTANT MANAGER or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS OVERSEER for 1898; can furnish recommendation from the best planters of the State. Address E. O. W., Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address A. B., 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; all references furnished. Address C. LAURENT, Whitecastle, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY SOBER young man wants position as manager of small store on plantation, on salary or commission; gilt-edge reference as to ability and character. Address B. B., 1925 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address W. T., care Daily Journal, Plaquemine, La. 12-23-97

WANTED—POSITION AS CLERK IN A COUNTRY or plantation store; not afraid of work. Address CLERK, Postoffice Box 69, New Orleans, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY SOBER young man wants position as manager of small store on plantation; salary or commission; gilt-edge references. Address B. B., 1925 Bayou Road, New Orleans. 12-17-97

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address COMPETENT, Box 649, New Orleans. 12-21-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address R. V. H., 129 Decatur street, New Orleans. 12-16-97

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898 at living salary. Address BOB, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and Rapides parishes and some New Orleans merchants. Address SMITH, care this office. 12-16-97

WANTED—A FIRST-CLASS PAINTER, accustomed to country and plantation work, would like to obtain work either by the day or contract. Address BRUNO, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address E. C. MARSHALL, Cheneyville, La. 12-7-97

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address HUSTLER, 1100 Dante street, New Orleans, La. 12-8-97

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and bookkeeper; experienced, and can give good reference. Address J. E. W. DAVIS, McCall, La. 12-4-97

WANTED—POSITION AS BOOK-KEEPER, manager of store or large farm, or any other position of trust on plantation, where strict honesty and reliability are appreciated. I am 50 years of age, married, of good education, and ready to enter position on or after January 1, 1898. Address CHAS. S. FRITCH, Port Allen, La. 12-4-97

WANTED—By a young lady of several years' experience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address X Y Z, care PLANTER. 12-3-97

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address B, care of The Chief, Donaldsonville, La. 12-3-97

WANTED—A YOUNG LADY WISHES A POSI- tion as governess in a Catholic family; good references and moderate terms. Address MISS K, care this office. 11-12-97

WANTED—SITUATION ON SUGAR PLANTA- tion or saw-mill, as boarding house keeper; long experience; can furnish best of references. Address COMPETENT, care LOUISIANA PLANTER, New Orleans, La. 11-17-97

WANTED—POSITION AS VACUUM PAN sugar maker; has had long experience, and can furnish evidence of competency. Address H. S. LEWIS, 602 Gravier street, City 11-10-97

WANTED—A MAN WITH PERFECT AC- quaintance with the Spanish language, both in speaking and writing, and some knowledge in book-keeping, to take responsible office position on sugar estate in Mexico; must have unexceptional references and be willing to begin on a small salary; a good opportunity and first-class position to satisfactory person. Address, with age, nationality, and other details, B. F. JOHNSTON, 825 Warren avenue, Chicago, Ill. 11-10-97

WANTED—AN ASSISTANT ENGINEER ON sugar estate in Mexico; sober, industrious man of experience, with references, preferably with some knowledge of Spanish; a live position to the right man; salary small. Answer, stating age, nationality, married or single, salary desired per year, etc., to B. F. JOHNSTON, 825 Warren avenue, Chicago, Ill. 11-10-97

WANTED—A COMPETENT AND EXPERI- enced machinist and sugar plantation engineer wishes to engage by the year with good people at a small salary; references good; habits strictly sober; time to begin January 1, 1898, or to suit agreement. Address P. H. E., Engineer, 734 Dublin street, Carrollton, La. 11-7-97

WANTED—BY PARTY OF SEVERAL YEARS' experience in sugar manufacture and refining, a position in Louisiana or Mexico; have superintended work in both refineries and factories; can give testimonials from all former employers. Address H. S. R., Box 1356, New Orleans, La. 11-9-97

WANTED—TWO COMPETENT DOUBLE effect men. Apply 218 Canal street, city. 10-20-97

WANTED—CHEMICAL POSITION IN SUGAR house, by young man, graduate of Stanford University; can read and speak French, English and German. Experienced in sugar making and refining in California. Address G. H. BALDWIN, Shreveport, La. 11-5-97

WANTED—POSITION AS STENOGRAPHER and typewriter, by a competent young lady; excellent references. Address STENOGRAPHER, care M. R. Powers, 704 Common street, New Orleans. 11-6-97

WANTED—BEST SUGAR ENGINEER, HAVING had large practice in designing best sugar houses, and with experience in erecting and running, would like to connect with some new company or manufacturer of sugar machinery; best of references and satisfaction assured. Address SUITABLE, care LOUISIANA PLANTER. 11-2-97

WANTED—A POSITION AS CARPENTER AND millwright; understand putting up shafting and setting up machinery; twenty years' experience. Address GEORGE HINMAN, Franklin and Josephine streets, New Orleans, La. 11-1-97

WANTED—A POSITION AS A SUGAR MAKER; willing to do his own polarization; has had eighteen years' experience; can furnish reference. Address ALFRED ROUSSEAU, this office. 11-4-97

WANTED—A POSITION AS SUGAR DRIER; has had eighteen years' experience; can furnish good reference. Address M. MONTEGUDO, 437 English street, city. 30-10-97

WANTED—A POSITION ON A PLANTATION as a clarifier, centrifugal man or sugar boiler in steam train or open pan. A No. 1 reference from some of the best men in the State. Address J. B. TREPAGNIER, 1582 Miro street, New Orleans. 30-10-97

WANTED—A POSITION AS SUGAR DRIER; has had fifteen years' experience; can furnish good recommendations. Address JOSEPH CADRO, English and Decatur streets, city. 30-10-97

WANTED—BY A YOUNG LADY AS GOV- erness in the country for small children; salary \$10 a month and board; good reference. Address TEACHER, care Station E, New Orleans. 10-27-97

WANTED—POSITION BY A FRENCH SUGAR boiler recently arrived from Cuba. Has been first sugar boiler during twenty-five years in the most important sugar houses in Cuba. Address A. B., this office.

WANTED—BY A VERY COMPETENT SUGAR house and distillery chemist or sugar maker, a position in an important sugar house; eighteen years' experience in the most important sugar houses in Cuba (Porto Rico). Address A. D. R., this office.

WANTED—A YOUNG FRENCHMAN, 24 years of age, desires a position in a sugar house or mechanical construction shops. Has had experience as mechanic in France and in the most important sugar houses in Cuba. Address M. N., this office. 10-22-97

WANTED—A POSITION AS SUGAR DRIER by a competent man, who can furnish good references. Address ALPHONSE CARRILLOUX, Detention Camp, Waggaman, La.

WANTED—BY A RELIABLE MAN OF EXPERI- ence, a position as sugar maker; well up in the management of central factories. Address SUGAR MAKER, No. 1716 Baronne street, New Orleans. 10-14-97

WANTED—YOUNG MAN OF 26, SOBER AND industrious, wants a position as assistant sugar boiler or chemist of some sugar factory or estate in Cuba, Hawaii or Mexico; have had fourteen years of practical experience in manufacture of sugar. Address SUGAR, Waggaman P. O., Jefferson Parish, La. 11-7-97

WANTED—A POSITION AS SUGAR WEAVER or clerk or fireman; can fill any with competency. Address A. J. CASTIN, 1529 Mandeville street, city. 10-20-97

WANTED—A POSITION; A HANDY MAN ON a plantation; can furnish recommendation. Address WM. J. TONGLET, 413 Royal street, New Orleans, La. 11-3-97

WANTED—HOSTLER FOR MEDWAY PLAN- tation, Bayou Salé, St. Mary parish. Apply with reference to D. J. KER, North Bend Plantation, Foster P. O., La.

WANTED—A POSITION ON A PLANTATION as centrifugal man, by a first-class sugar drier. Address H. A. WHALEY, care of Wm. Johnson, 7000 Magazine street, New Orleans. 9-23-97

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JESSE W. ROSS,

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

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AND

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Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.

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the Sugar Industry in particular, and in all its
branches, Agricultural, Mechanical, Chem-
ical, Political and Commercial.

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The Sugar Beet Industry at Grand Island, Neb.

In this issue we publish a report of a committee from Lasalle county, Ill., which went to Grand Island to investigate the beet sugar industry there with a view to its establishment in Lasalle county. The report of this committee, as published in our columns, is a very instructive one, and gives striking reasons for the general bent of the farmers of the West at the present time toward engaging in the beet sugar industry. It is not that the industry promises to be so extremely lucrative, but that, ordinarily, farming, as conducted during recent years, has proven so very unremunerative, the resulting feeling of discontent is leading farmers generally to long for some industry that shall prove more remunerative. The practically unanimous reports of good results made by these farmers about Grand Island would seem to carry conviction to the minds of any one interested in 15-cent corn and 50-cent wheat. There is no doubt but that the American inventive faculty, which is now being concentrated upon the beet sugar industry, will cheapen the process of beet cultivation just as it has cheapened the process of corn cultivation. If the prices of sugar be maintained, which seems probable, for several years to come, the dream of the Western farmer that he shall secure some more remunerative crop than corn or wheat seems likely to be realized.

Sugar Beets in New York State.

In a recent issue of Willett & Gray's *Statistical*, a statement was given of the average tests made by the State College of Agriculture at Ithaca of beets grown in experimental plats in twenty-four counties of the State. These considerable plantings of sugar beets indicate the interest taken by the farmers in the sugar-beet industry, and the favorable results in tonnage and sugar content would indicate that this interest will be

intensified and doubtless lead to a considerable development of the beet-sugar industry in that State.

The average sugar content of the beets from these twenty-four counties reported was 16.89 per cent.; the purity is reported at 83.5 per cent., and the yield per acre in tons of beets at 16.95.

These results have been calculated from 425 samples that have come from 272 experimental plats, and there could hardly be any better experimental test than we find here made. It would hardly require the gift of prophecy to truthfully say that the beet sugar industry is destined to have a large future in New York State.

The Velvet Bean.

We learn from the *Rural New Yorker* that this bean was planted on its Long Island farm over fifteen years ago; that the seed came from Japan to Professor Georgeson of the Kansas Agricultural Experiment Station. If this bean possesses the merits that some of its friends think it has, it will work quite a revolution in Southern agriculture, but it will find a hard competitor in the cow pea, that has occupied the field for so long a time and which everywhere gives such universal satisfaction as a soil renovator and as a first-class forage plant.

The Foundrymen's Association.

THE LOUISIANA PLANTER acknowledges the receipt from Mr. Howard Evans, secretary, of an invitation to join in the seventy-fourth meeting of the Foundrymen's Association, which was held at the Manufacturers' Club, on Wednesday evening, January 5. The programme for the occasion states that the *annealing of malleable cast iron* was to be treated by Mr. George C. Davis of the manufacturing house of Thos. Devlin & Co., of Philadelphia, and Mr. Robins, of the Clement Pneumatic Tool Company, was to read a paper on the *Improved Pneumatic Tools for Foundry Use*.

THE PLANTER has no doubt but that the gentlemen had an enjoyable and profitable meeting and regrets its inability to attend.

The Louisiana Sugar Planters' Association.

The January meeting of this association will be held on Thursday next, January 13, at 8 o'clock P. M., at No. 339 Carondelet street, New Orleans. The subject of "Crystallization in Movement" will be discussed and a very large attendance is expected. Several valuable papers have been prepared for the occasion and all interested, whether members of the association or not, are cordially invited to be present.

Louisiana State Agricultural Society.

The twelfth annual session of the Louisiana State Agricultural Society, which will be held at Crowley, Wednesday, Thursday and Friday, January 26, 27 and 28, promises to be an exceptionally interesting session. The wonderful vitality, energy and ability of the good people of Southwestern Louisiana are nowhere more manifest than at Crowley. The parish of Acadia is already a record breaker, having a few years back made the largest rice crop ever harvested in any parish in the State. Her rice mills, located in Crowley, outnumber those in any other town in the State, New Orleans excepted, and promise to exceed even these. Crowley is now a large town, with hotels, banks, factories, college, schools and churches, where a few years back the monotony of limitless prairies was unbroken by a single building.

These strong, active, enterprising new people are the ones who have called the Louisiana State Agricultural Society to come to them and hold this annual meeting in their live town. One of the features of the meeting will be the annual session of the Louisiana Stock Breeders' Association, which was organized in Baton Rouge last January, and under the presidency of that able, energetic and successful stock breeder, Mr. W. L. Foster, of Shreveport, promises to take front place among the live stock organizations of the South.

The secretary of the Louisiana State Agricultural Society has made arrangements with several of the railways to transport at one and one-third fares those

who desire to attend the session at Crowley. It will be necessary to pay full fare going and to obtain from the railroad agent the proper certificate of such payment. Those who attend the meetings can have these certificates endorsed by the secretary and secure return tickets at one-third fare. Unless these precautions be taken the reduced fare can not be secured.

Louisiana Stock Breeders' Association.

This new organization, which was brought into existence in Baton Rouge last January, at the annual meeting of the State Agricultural Society, will hold its first public meeting this season at Crowley, in connection with the State Agricultural Society, Friday, January 28, having been allotted to this organization to make its showing.

While the stock breeding industry is one of the oldest ones in the State of Louisiana, the plains of the Attakapas having been covered with horses and cattle for more than a hundred years, modern stock breeding, as now conducted with high grade stock, is a new industry in this State, and one in which our people could excel with the greatest ease if they would simply investigate the advantages that we possess and avail of them. When we consider how profitable stock raising has been in many of the Western States of the Union, and under what disadvantages they labor, as compared with ourselves, we can readily imagine what a future there is for us in this direction if we could only develop it.

A number of distinguished speakers, familiar with stock raising, will be on hand at Crowley, and it is hoped that the industry will be given an impetus at that time that will be felt for years to come. Let every friend of improved stock in the State of Louisiana lend a hand upon this important occasion.

A Central Sugar Refinery for Houma.

The *Houma Courier* in its last issue in a leading editorial brings out the advantages of a central sugar refinery if located at that point. The parish of Terrebonne standing now second among our sugar parishes in the extent of its production, the *Courier* argues that an establishment located at Houma could not only get all the supplies that it

might want of the raw material, but would be advantageously located for the distribution of the refined product to all parts of the country. Just as our beet sugar factories in the Western States turn out pure white sugars ready for immediate consumption, so can our great central factories turn out pure white sugars equal to any in the land if they so desire. It is simply a question of industrial economics and will settle itself in each locality based upon its advantages. The *Houma Courier* believes that the interests of that community lie in the creation of a great central factory which will turn out pure white sugar for direct distribution to the whole country.

The Cane Crop.

Quite a severe freeze was chronicled during the past week all over the sugar belt, but the campaign is so very near its end that it was of but little consequence as a factor in the sugar output. There are indications of a considerable increase in acreage for next year, and the work of preparing the land is progressing under favorable auspices.

Crystallization in Motion.

The subject of "Crystallization in Motion" has lately attracted a great deal of attention among the local sugar-planting fraternity, who see in it a possible relief from the expense of maintaining hot rooms with their equipment of sugar wagons, and all the annoyances and delays incidental to the tedious method of bringing low products to grain which now prevails. Of such importance has this matter been considered that it has been selected for discussion at the next meeting of the Louisiana Sugar Planters' Association, where we hope considerable light will be thrown on the matter, some valuable papers having been prepared by experts who have had experience with the apparatus used in effecting rapid crystallization by movement.

Those who were particularly interested in the subject were afforded a valuable opportunity last Tuesday, through the courtesy of Mr. E. P. Eastwick, Jr., to witness an apparatus which does this work in actual operation on the Beka plantation of Messrs. Levert & Harrell, some twelve miles below New Orleans, on the Algiers side of the river. Mr. Eastwick secured the fine new tugboat Robert W.

Wilmot, which is the most powerful craft of her kind in this or any other harbor in the United States, and on his invitation some twenty gentlemen, including Mr. Eastwick himself and his local representative, Mr. W. L. Dearborn, Messrs. John Barkley, J. N. Pharr, Theo. Schmidt, M. Israel, Charles Godchaux, F. B. Freret, Hebert, Boudreaux, Himel, Morgan, Jacob, McDonald, Ferchaud, Cunningham, Mr. C. M. Whitney and Mr. A. L. Marshall of the Whitney Iron Works Company; Judge Emile Rost, president, and Mr. Reginald Dykers, secretary, of the Louisiana Sugar Planters' Association, boarded the boat about 2 o'clock in the afternoon, and were hurried down the river at the rate of nineteen miles an hour to Beka, where they disembarked.

The apparatus erected at Beka was designed and patented by Mr. Eastwick and manufactured by the Whitney Iron Works. As there will be a model of it on exhibition at the meeting of the association next Thursday night, and as an electrotype of it appears in the advertisement elsewhere in this journal, a description of it is not necessary here, where our space is somewhat limited. The apparatus was critically examined by the visitors, and while they were there Mr. Harrell, one of the proprietors of Beka, allowed it to discharge some of the mass of low product it had contained for the past twenty-four hours. The stuff had an excellent grain, as good as would have been secured by weeks of waiting in the hot room, and the operatives and owners seemed highly pleased with the results they were getting. Only about one-tenth of one horse-power is required to operate the device, which is a great advantage over many similar types of apparatus extant, most of them requiring some six or eight horse-power. It requires but little attention, does away with all the labor, expense and delay incident to crystallization in wagons, and it will doubtless be placed in a number of sugar houses during the coming year.

Hawaiian Annexation.

The Louisville *Courier Journal*, of December 29, contains an excellent article anent our proposed annexation of Hawaii, written by a Hawaiian merchant, who knows whereof he writes, and exposes the fallacy of the arguments

and the disingenuousness of the annexationists.

The *Courier-Journal* says:

Now that the question of the annexation of Hawaii is being generally discussed, the following from an intelligent resident on the islands is of much interest. The writer is Mr. Robert Catton, for twenty years a resident of Honolulu. He is a relative of Mr. L. T. Davidson, of this city, and the matter presented is taken from a private letter to Mr. Davidson. Mr. Catton fires some centre shots at Congressman Berry and other annexationists, and riddles their arguments with a single broadside. He writes:

"You ask me what I think of annexation. I think it would be a mistake on the part of the United States and a misfortune for Hawaii. I enclose a clipping from a local paper purporting to give Mr. A. S. Berry's reasons, 'why Hawaii should come into the Union,' and 'the advantages that would accrue to the United States.' Mr. Berry was here recently, and is, I believe, a representative from Kentucky in Congress. I shall reply to his reasons in their order, without transcribing them entire.

"He assumes that the nation which owns the islands will be in a position to command the entire Pacific coast. That is a very wide assumption. Indeed, this idea of 'commanding' the Pacific coast from a distance of 2100 miles has been so stretched in length as well as width that it is quite thin enough to see through. The nation that you are most likely to go to war with is Great Britain—and that is about as likely as that you and I should fight a duel, but suppose you annex the islands and get to fighting the British; what sized fleet do you suppose would be required to hold them and shut up the enemy in Esquimaux? And if you could not do both, what would prevent him from so blockading the islands that neither coal nor provisions could be landed?

"There are no coal mines here, and all we eat, except beef, rice and vegetables, is imported. It is further assumed that with possession of Hawaii the sway of the United States over the commerce of the Pacific would be assured. I don't know just what this means, for all the difference that the annexation will make to the commerce of the Pacific will be the prohibition of other than American vessels trading between here and the Pacific States. That will be some detriment to Hawaiian commerce, but not a great deal, comparatively, for now almost the whole of the trade between the islands and the coast States is done under the American flag. The 'commerce of the Pacific,' if that be understood to mean the trade between Asia and America, will continue with the most enterprising ship owners, be they American, British or Japanese.

"Mr. Berry's second point is: 'If the United States shall not seize the islands they will be seized by some other power.' It is something to have it admitted by an annexationist that annexation will be a seizure. So it will, but the assertion as to seizure by some other power is altogether gratuitous and void of foundation. No other power is foolish enough to fight the United States, as it would have

do, for the possession of the islands, and I was very much surprised at the measure of success which attended the efforts of the present Hawaiian government to impress your people with the danger of interference from Japan.

"Mr. Berry cites figures showing the value of the imports and exports of Hawaii as a reason for annexation from a merely business point of view, but as 95 per cent. of the whole trade is with the United States, I fail to see that it is worth while for them to assume so much trouble and spend so much money, as is proposed, to secure the other 5 per cent.

"Annexation would take Hawaii out of the field of international politics,' says Mr. Berry. Hawaii does not occupy the field. During a twenty-years' residence I have not seen or heard anything to lead me to suppose that any nation would question the authority of the United States to interfere with the island government. To support this opinion I may instance the reply of the British Under Secretary for Foreign Affairs to a question in the House of Commons at the time of the Stevens occupation of Honolulu: 'What measures, if any, have been taken by Her Majesty's government to protect British subjects and their interests in the Hawaiian islands during the present unsettled state of affairs there?' 'Her Majesty's government has perfect confidence that the friendly offices of the United States will be freely granted and prove perfectly sufficient for the protection of British interests in Hawaii.' I have also seen in print the peremptory instructions from the Secretary of the Navy at Washington to the admiral here to see that British as well as American interests did not suffer. They will be found in the appendix to Mr. Blount's report of his visit to Honolulu.

"Now, British interests here are equal to those of the rest of Europe, and if there is such a perfect understanding between America and England what does Mr. Berry find to which to attach the red flag of jingoism? He refers to the landing of foreign troops here three times during the last twenty-three years to quell disturbances. There was a disturbance at the first landing over the election of the late King Kalakaua, which I did not see. There was also a disturbance in 1889, put down without the men from the Adams having to take any hand in it, but there was most emphatically no disturbance at all when Mr. Stevens landed the men of the Boston to assist him in 'plucking the Hawaiian pear.'

"Mr. Berry admits that the Asiatic population of the islands could not be received into citizenship, and goes on to say that it would gradually disappear, under the terms of the annexation treaty, until little would be left in ten years. The present Asiatic population probably would, to reappear in the continental parts of the United States, and the question as to what population would take its place brings me to the principal part of the misfortune that I think annexation would be to the islands—the difficulty there would be in getting labor for the sugar plantations.

"There are ardent annexationists here, who

[CONTINUED ON PAGE 81.]

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: Now that the grinding season is practically over and no one cares particularly what the meteorological conditions are, the weather bureau is on its good behavior and the plantations that are still in the throes of the cane harvest are having the nicest kind of weather in which to wind up their work.

Only one factory is still in operation in Ascension, and that is the Belle Helene, which will be turning its rollers until about the 15th instant.

The Houmas Central wound up its campaign on the last day of the old year, obtaining a sugar total of about 8,000,000 pounds, as estimated, from 47,000 tons of cane. The output of the Miles Company's factories will be in the neighborhood of 18,500,000 pounds, as reported last week. New Hope's average, which was said last week to be 172 pounds per ton, was really 190½ pounds. This is the banner record for Ascension, and if any other factory in the State can excel it, let the figures be cited.

Hermitage wound up yesterday, obtaining 3,103,000 pounds of sugar, an average of 171 pounds per ton.

The total product of this parish is within 2,000,000 pounds of that of 1896, which aggregated 46,677,000 pounds, and the cane from three large plantations has been taken into St. James for conversion into sugar.

On every hand reports are that the planting for this year's crop is unusually heavy, and if nothing unforeseen prevents, the yield for 1898 will be a record breaker, so far as concerns

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been elegant since last report. The rainy threats mentioned came to naught, it having turned cold without the usual rain. A steady wind blew all of Friday and part of Saturday, and on Saturday night the thermometer dropped to the 20 deg. mark. All cane sprouts above the ground, as well as numerous vegetables, were cut down. The soil has dried out beautifully and field forces on all places, with few exceptions, are out in full, and work is being pushed with energy. Ploughing and cane planting are the principal works. Seed cane seems to be very good, though in places badly sprouted, owing to the warm fall. The rate of wages is still unsettled, but it is the impression that it will be 70 cents per day, the amount paid immediately before rolling.

With the exception of the Catherine factory of the J. Supple's Sons Planting Company, Limited, the Iberville Planting and Manufacturing Company's Cora factory, and Hon. James A. Ware's Belle Grove, all in the first or Bayou Goula ward, the work of rolling is over. The crop has turned out well. The year 1897, notwithstanding several drawbacks, was one of prosperity, and we predict a bright future for Iberville.

The rolling season was brought to a successful termination last night at the Tally-Ho central factory, of the Geo. M. Murrell Planting and Manufacturing Company, Limited. The total output will reach 4,750,000 pounds, a larger crop than last year, although a smaller tonnage was ground. The average per ton was a fraction over 160 pounds.

Mr. Charles E. Booksh has purchased from Capt. Charles A. Brusle the Cropper tract on Bayou Plaquemine. Price, \$3500.

The Whitecastle Lumber and Shingle Company, Limited, of Whitecastle, La., has made quite a number of sales of small farms back of Whitecastle, mostly to men who were formerly tenants on sugar plantations in Assumption parish. These lands are being cleared up, and are gradually being put in cane, which will be sold to the factories on the front.

The questions now agitating the minds of the sugar people of New Orleans are also being considered by the sugar people of the country, who are unanimously of the opinion that if the only way the sugar business of New Orleans can be saved is by discrimination of freight rates against country points, the sugar business of New Orleans should go by the board. The sugar planter believes that he can weigh his own sugar and gauge his own molasses barrels and takes a certain pride in doing it, and if he can find people who will accept his weights and gaugings and pay him a better price at his door than on the markets at New Orleans, he would be silly indeed to send his wares to New Orleans. It is not because of favorable rates on railroads or discriminations on their part that so much sugar and molasses was sold direct to consumers this year. There are other causes, and if the sugar people of New Orleans want really to find out these causes, they will only have to look back at many of their account sales. There is not the margin in sugar there was formerly, and the planter has to look after and take care of his dimes.

District Court will convene in regular jury session next Monday. IBERVILLE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: A week exhilarating in its sunshine, seemed particularly bright, coming as it did after the gloomy, disagreeable, murky weather of Christmas. There was ice two or three days, and on Saturday night and Sunday the thermometer touched 24 deg. All day Sunday there was ice in the shaded spots, and to-night (Monday) there will be another hard freeze. This weather will do no harm, save it may cause the loss of a few hours' work in those factories still running.

They have become few and far between now, Glenwood having wound up last week. The Westfield mills and those of Elm Hall are still turning, but even on these places the end is now in sight.

Mr. John Vives seems none the worse for the active part he took in the campaign, and plumes himself over the good prices obtained for the products manufactured.

To-day was almost too cold for active field

work to be fully inaugurated. Some will start planting during the present week if the good weather holds up and will permit. I hear that there is some complaint of sprouting in the seed cane first put down, and for that reason planters are anxious to have it planted.

The price generally to be paid for labor from what we can gather will be seventy cents per day for the best hands. This is an increase of last year's prices, and shows that the planters are willing to share with the hands the benefits from the higher prices caused by the Dingley bill. This is but right and proper, though, as a matter of fact, the price paid during the grinding season was really higher than justified by the price of sugar then ruling.

A chat with Mr. Monnot disclosed the fact that Elmfield this year made more sugar than ever before—we mean the total output, including bought cane. The levee work along this section is progressing rapidly, but the roads certainly need the attention of the police jury. There is one spot so bad that buggies are bound to go on the levee, in order to get by, and in consequence the new levee will suffer. If, as some say, the test of civilization be the state in which the highways are kept, we fear that civilization is at a low ebb in Assumption.

The approaching wedding of one of our prominent professional men has put society in a flutter. The bride is from an adjoining parish, and is spoken of as a social favorite. As the engagement is yet not officially announced, we are not in a position to give the names of the contracting parties.

Mr. Willoughby Kittredge spent the holidays at the Oaks.

Mr. and Mrs. Harry Whittington, of Washington, have been visiting relatives here.

Dr. Sims, of Denver, and Mrs. Burgess are guests at Glenwood. Mr. Burgess was recalled to Texas after spending a few days at this typical plantation home.

Miss Mary Foley left on last Monday for a stay of some time in Indiana, whence she will probably leave for a stay of some days in Chicago.

Mr. William Baker will assist Mr. Blanchard in the field work of Ravenwood. Quite a good crop was made there this year, the cane being sold to the Oakley Planting Company. Mount Lawrence also made a large tonnage, something over 4000 tons. As a rule the acreage planted this year will exceed that of last year, nearly every one having put down a larger amount of cane than usual—the brighter prospects for sugar doubtless causing more confidence in the future of this industry. We learn that among other improvements contemplated on Elm Hall will be the putting in of a larger mill in place of the present smaller one. We learn of other contemplated improvements on several places that are, however, not yet quite definitely settled upon.

Messrs. Cornegay and E. P. Gilbert were recent visitors to Lafourche, and come back delighted with the house of Mr. Mathews, of Georgia plantation.

Mr. H. S. Crozier was in Assumption on Sunday, shaking hands with his numerous warm friends.

Captain and Mrs. Jas. A. Lanier are visiting relatives in New Orleans.

Mr. Louis Landry is spending some days in Assumption. MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: But for the low temperatures which prevailed during the first three days of the new year the weather latterly has been very favorable for the harvesting of the cane crop; the roads where travel is constant are becoming dusty. Usually at this season of the year hauling is not only arduous but at the same time very expensive, owing to the bad condition of the dirt roads. When the recent cold wave made its advent the quantity of the standing cane was very limited; those who had not had recourse to windrowing cut the canes in advance of the mill requirements and covered them with tops, which protected the stalks from the effects of the freeze. Ice found on the morning of the first of January, but the following morning the temperature was lower, as in exposed vessels the thickness approximated one-half an inch.

In some instances the operations of the factories have been retarded by the want of adequate supply of coal and wood, due in a great measure to defective boiler plants, bagasse burners and utilizing hot water to the utmost. To economize steam and hot water to the utmost will aid in decreasing the cost of manufacture.

On the line of railroad the campaign has ended at Magnolia, of Capt. J. J. Shaffer, and Ellendale, of Mr. Ed. McCollom, and on the lower Bayou Black, at Belle Farm, of Mr. C. W. Bocage. On the Chacahoula, at Forest Grove, of Messrs. Buford & Bernard, grinding will be brought to a close at the end of this week or at an early date the next; but at Poverty Flat, of Messrs. McCollom & Cocke, it will be prolonged for some time to come. Also at Ardoynes, of the Messrs. Shaffer Brothers.

Should the weather continue favorable the factories at Crescent Farm, the Shaffer Estate, Myrtle Grove, of Messrs. Barrow & Duplantis, Orange Grove, of Messrs. Dupont & Joliet, and Presqu'île, of the Messrs. Guéno Brothers (if not already through), will close down at an early date; also the Lower Terrebone refinery, of Messrs. Bush & Maginnis, and Ashland, of Messrs. Caillonet & Maginnis; but at Honduras, of Messrs. Shaffer & Morrison, and Argyle, of Messrs. Bonvillain Brothers, ten days or more may elapse before operations will cease.

The sudden and unexpected death of Mr. Bernard, at Forest Grove, cast a gloom over the neighborhood, where he was highly esteemed, as elsewhere where known.

The weather for the last three days of the old year, Wednesday, Thursday and Friday, was variable, and the new year Saturday was cold and clear, with thin ice; Sunday morning was colder, with thick ice for this latitude; Monday, very heavy frost with some ice; Tuesday, somewhat spring-like with some cloudiness; Wednesday morning somewhat cloudy, with southeast wind.

The weekly report from Schriever is as follows, thanks to the courtesy of Mr. J. T. Moore, Jr.:

	Temperature.	Rainfall.	Sunshine.
December	27.47.0	35.0	25
"	28.61.0	34.0	25
"	29.62.0	29.0	100
"	30.70.0	30.0	100
"	31.73.0	43.0	25
January	1.65.0	30.0	25
"	2.45.0	21.0	100
	55.8	31.7	57

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The general saying is that things change from the sublime to the ridiculous, but we will just have to reverse the order of things this week to express the condition of the weather. When we gathered the general happenings for THE PLANTER last week the most ridiculous weather of the season was prevailing, and to-day, and for several days past, the weather has been perfectly sublime. It was very cold for several days, and especially on New Year's Day there was a general freeze-up, the thermometer registering 28 deg., but now it is considerably warmer. The great amount of rainy weather that we have had this season has hindered general outdoor work considerably, but a few weeks of such weather as we have enjoyed for the past six days will offer a first-class opportunity to catch up.

Sugar making at the local mills has been finished up, and the yield proved very satisfactory as a whole. During the first part of the season the cane was green and light, consequently the yield was poor, but it gradually grew better, and the average yield will reach upward of 180 pounds of sugar per ton of cane. The Rose Hill refinery turned out about 2,225,000 pounds of sugar on a short run of 14,000 tons of cane, and the results at other mills were about the same. A close canvass of the prospective cane crop for the coming season indicates that the acreage will be increased at least 100 per cent. over last year's crop, and we hardly think there is a doubt but that increase will be realized if the seed put down for this year's planting keeps till it can be planted. Lots of seed cane spoiled last year, caused from wet weather, but to date this year there has been no complaint along that line. Doubtless the small planters learned a lesson by their previous losses.

The machinery for building the large rice canal for Messrs. Hall & Sutz, on lower Bayou Vermilion, has arrived here, and these gentlemen are busily engaged getting it out to the place to begin work at once. This canal is to be about six miles long and will have a capacity of irrigating 5000 acres of rice. The machinery is new from the factory and consists of an immense elevator and grader for throwing up levees, together with numerous smaller graders for finishing up the canal. They expect to have the canal ready to irrigate early rice.

Mr. Charles Brown, of the firm of Brown & Davis, rice planters of Shell Beach, in the

western part of this parish, is in Abbeville on business. Mr. Brown was one of the first to venture into rice in Vermilion and was the first to try irrigating for a sure crop. He informs your correspondent that he will cut down his acreage in rice this year and pay considerable attention to stock.

Mr. Charlton Beattie, a prominent young lawyer of Thibodaux, La., is spending some time here shooting quail.

Mr. Milner Brown, a large rice planter of West Vermilion, was in Abbeville this week. Mr. Brown says that the rice planters in his neighborhood are making preparations for an immense crop this year.

Mr. J. Henry Putnam, of the Rose Hill, went to New Orleans on business a few days ago.

Mr. Russell Putnam, son of J. Henry, left here last Sunday to enter the Cornell University, New York.

The new year dawned upon us very pleasantly and was quietly observed in this section. As usual, many new resolutions were formed, but quite as many have been broken already. With the compliments of the season I beg to remain for the year 1898. P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: The first of January brings about moves and changes. New situations are sought for in the hope of obtaining something better. But from what can now be learned it seems that at present there is less disposition among tenants and those who have to rent to move than noted in past years. The laboring classes, while not making nor saving much ready cash during the past year, are, to all appearances, fully satisfied with their surroundings, hoping that the future will in the end bring to them something better.

THE PLANTER's correspondent called at the Powhontas sugar factory on the 3d inst. and was received most graciously by Mr. Jas. McCracken, of the firm of McCracken Bros., proprietors of the Powhontas plantation and factory, as well as by Mr. C. G. Fuselier, manager; Mr. Chas. A. Stewart, chief engineer, and his able assistant, Mr. Frank Killeen.

It was a pleasure to find the factory running without a jar, and as smoothly as the best balanced chronometer. The mill was doing excellent work. The extraction was equal to the best. The juice, weighed in the presence of THE PLANTER's scribe, showed 10 deg. Baumé, showing the rich quality of the cane grown on the place.

Mr. Fuselier informed me that he had fully seventy-five acres of cane in the field to draw to the factory before he called a halt, and would not get through before the 20th of the present month. The sugar is of an excellent quality, showing conclusively that Mr. P. Loup, the sugar maker, is master of the situation. Mr. Stewart, chief engineer, and his able assistant, Mr. Killeen, informed me that after starting, and since the first few days at the start, the machinery in the house has worked beautifully. Mr. Cobb, the stirring overseer, was absent at the time in the field, busy, as

is always the case with him, rushing cane into the factory.

After a limited time devoted to, and pleasant moments passed with, friends, mechanics and manager at the Powhontas sugar factory, I could not but conclude that the proprietors of this fine factory need to congratulate themselves on the manner in which their business is conducted, the character of the men employed bringing out success.

Bidding all a pleasant adieu our next call was at Eola, where it was my pleasure to enjoy a few moments with Capt. John A. Tarlton, only a few days up from St. Mary, where he was engaged on Mr. O. D. Berwick's Johnson plantation and sugar factory. Captain Tarlton informs me that Mr. Berwick made a very successful grinding; the yield per ton of cane to sugars was of the highest quality, and when footed up would give fully 200 pounds of sugar to the ton of cane worked up. The only fault, if there was one at all, was the light tonnage per acre harvested, owing to the dry nature of the weather during a part of the past season.

Information of a reliable nature states that Mr. John F. McMillan, having for the past three years so successfully directed the management of affairs on the Leinster plantation, has resigned his position there to engage in the mercantile business.

Mr. C. F. Knoll succeeded well in getting his cane off to market in due season, having shipped his last car load of cane on the afternoon of the 1st instant, and with most gratifying results.

The weather has been all that could be wished for during the past week. The lowest drop in the mercury was on the morning of the 2d to 22 deg. Dry and pleasant.

ERIN.

St. James.

[Special Correspondence.]

Editor Louisiana Planter: Never has a new year been ushered in under more promising auspices than 1898 was. For a week previous to its birth the elements had made a perfect somersault, converting wet weather into dry weather. Last Friday premonitions of very cold weather were observed in the atmosphere, which developed into the arrival of old Boreas arrayed in his severest garments. Ice glittered like crystal, in large sheets in ditches, and candles of icicles hung in thick rows around houses and cisterns. After two days of shivering and freezing we are again basking in sunshine and temperate weather; heavy clothes are discarded, and humanity is almost under the impression that spring has signalized her permanent advent. In brief, the elements are simply glorious.

Under the above propitious circumstances the rolling campaign, except in two or three cases, has expired. The only commentary to be made is that although not extraordinary, the crop of 1897 proved more satisfactory than prognostications in the beginning of the season promised. In fact, the year was an average good one, better prices for sugar partly compensating for other losses and shortage in the crop. That the planter is taking advantage of better prices is a fact which the large

shipments daily made testify. We know of very few planters who are holding their sugar for still better prices, which are promised later on. Heretofore, though Louisiana sugar was considered only a handful, its arrival always affected the market to some extent, which always puzzled the planter, who is not much versed in the doings on "change." Still, this year, our shipments did not interfere with reasonable rates. An encouraging spirit to begin another crop prevails everywhere; extensive improvements and alterations occupy many lines in note books.

Field work has already made some progress, and the odor of freshly tilled land predominates in the air. The acreage of planting will be doubled, and we have heard of several rice planters who are going into the cultivation of cane.

Messrs. Folse & Beltran, of Vera plantation, and Trosclair & Simon, of St. Joseph, have wound up their grinding campaign with very satisfactory results. So has Mr. Florian Waguespack, of Home place. Within the next few days those who are still grinding will follow suit.

Mr. Lauve has taken possession of his position as manager for Mr. Ames on his plantation in Jefferson parish.

Mr. Christophe Moritz will assist Mr. Torian on Lauderdale plantation.

A very pretty home wedding was celebrated at the residence of Mr. J. D. Gaskins, the contracting parties being Miss K. Freret and Mr. H. Cranberry, of Columbia, Tenn.

Miss O. Mioton, of New Orleans, returned home last Thursday, after a month's stay at Oak Alley, Miss J. Sobral accompanied her to New Orleans for the holidays.

ST. JAMES.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: The first effective cold spell we have had this season reached us Friday night. Previously heavy frosts and even light ice had appeared, but New Year arrived heavily coated in ice, the thermometer registering below 25. It was a bright sunny day, however. Until Wednesday the weather kept up its beautiful appearance, not a cloud was to be seen and the sky was of an untarnished blue, but it was too good to last, and now the foggy winter days are back and the sun seems almost to have forgotten us behind the clouds.

The grinding campaign is now recorded in the annals of the past. Oneida, Helvetia and Uncle Sam factories, which had hitherto been on the delayed list, have brought operations to a terminus and now active preparations are being taken to begin a new crop with the new year.

Ploughing is going on at many plantations, and after but a few days' rest the negroes, having already spent the rest of their wages, have all gone merrily to work.

With the happy prospect of a rising market, planters are busily engaged in preparing as much land as can be planted, and even

untilled grounds are receiving the help of the plow to grow more cane than usual.

No changes are heard of, as far as managers are concerned, excepting on the Union, where Mr. Kennedy, of New River Settlement, has taken the place of Mr. Eugene Folse, who, we understand, will manage one of Mr. Godchaux' plantations in Lafourche.

The rising river is already a topic of conversation, and levee work is being well attended to.

We note with pleasure the return of Louis Thibodaux, who had been away for almost a year, occupying a position as telegraph operator in Donaldsonville. He has assumed the place of clerk in the Uncle Sam store.

Rumor is afloat as to the establishment of a railroad station in the vicinity of White Hall, between Central and Union, thus shortening the distance to the different stations for the frequent "train riders" of the section.

CONVENT.

Iberia.

The Morbihan Planting and Refining Association finished cane grinding a day in advance of Christmas, having had a very successful season. The machinery, overhauled during the summer by Engineer Jos. Boutte, was at its best, and the work of grinding was completed without interruption. Encouraged by their success the proprietors contemplate extensive improvements for next year in the factory and also the extension of their narrow gauge railroad further up toward St. Martin and also toward the prairie section north of New Iberia, crossing the Teche below the town.—*New Iberia Enterprise.*

St. Mary.

The Caffrey refinery turned down a large force of labor last Monday, owing to the fact that cane is now coming in so slowly that the whole day can not be consumed. The half force remaining will finish up, which will be in a few days. We are told the run will be only a little over half what was expected in August and September, on account of not being able to get the cars contracted for with the Southern Pacific, which were barred out of this section by the quarantine regulations, which renders a great many cane contracts dissolved, and which will entail considerable extra cost upon the concern, besides earning nothing from the work of manufacture, in that it had to be conveyed to other mills in its own neighborhood for whatever it would bring. The Caffrey appears to be running through a streak of ill-fortune, from which we hope it will early recover, as it is a valuable commercial source to Franklin, and an honor to St. Mary.—*Franklin News.*

The Political Science Quarterly.

This most excellent quarterly, edited by the Faculty of Political Science of Columbia College and published by Ginn & Co., Boston, New York and Chicago, has recently come to hand and contains a number of able, timely and interesting essays and reviews. The essays include *The National Finances, 1893-97*, by

A. D. Noyes; *The Scholar's Opportunity*, by Prof. J. B. Clark; *The Silver Situation in India*, by J. C. Harrison; *The Proportion of Children*, by W. A. King; *Federal Trust Legislation*, by C. F. Randolph; *Government and Press in England*, by Edward Torritt; *Adam Smith's Lectures*, by Prof. W. Hasback.

Prof. Wm. A. Dunning gives *A Record of Political Events*, covering the calendar from May 9 to November 10, including among other items a statement of the Cuban question and a reference to *Greater New York*, while the *Reviews* include *Dillon's Laws and Jurisprudence of England and America* and *Pollock's First Book of Jurisprudence*, *Wilcox' Study of City Government*, *Stickney's State Control of Trade and Commerce*, *Booth's Life and Labor of the People in London*, *Wines and Koren's Liquor Problem*, *Bullock's Introduction to the Study of Economics*, and a number of other important works. This issue, dated December, 1897, is one of the most valuable of this always excellent quarterly and is worthy of the study of all seriously disposed thinking men.

Foreign Bounties and Sugar.

The fact that France, Germany, Austria-Hungary and the Netherlands are favorably considering calling a conference with a view of abolishing the entire export bounty system and the possibility that definite action may be taken within a few months have caused no little interest in sugar circles as to the influence on prices of such a contingency, and also upon future sugar market conditions. The Netherlands, for instance, pay (in round numbers) $1\frac{1}{2}$ cents per pound bounty on sugars exported, while Germany pays about $1\frac{1}{4}$ cents on raw and $\frac{3}{8}$ cent on refined.

It is agreed that the removal of the bounties will mean a higher price for raw sugars. On the other hand, it is not believed that the advance will be equal to the full bounties paid, since, with the removal of the bounties, there will doubtless be a corresponding modification in the bounty-paying countries of the internal revenues from which the bounties are paid, which may have some bearing on the consumption. According to a statement in the *Vienna Wochenschrift*, translated by Messrs. Willett & Gray in their *Sugar Trade Journal*, the tax on the consumption of sugar in Germany for the fiscal year 1896-97 amounted to \$29,643,148, while the export bounty amounted to \$5,088,756. Should the tax on consumption be modified it would, to some extent, mean an increased consumption in Germany. The extent of this increase is a matter that will require practical demonstration to determine. In this country it is the experience of refiners that $\frac{1}{2}$ cent per pound exercises virtually no influence in the consumption of sugar. In Germany the conditions may possibly be different.

There is considerable diversity of opinion as to the possibility that the removal of the bounties may result in the re-establishment of an export business from this country to the United Kingdom. This business some ten or twelve years ago was of considerable volume. Under the drawback system it is possible for American refiners to compete wherever the

freight charges will allow. It is estimated by the Treasury Department in computing drawbacks of duties paid on raw sugars when refined sugars are exported that it takes $107\frac{1}{2}$ pounds of raw sugar 96 test to make 100 pounds of granulated. The present duty is equal to \$1.68 $\frac{1}{2}$ per 100 pounds, or \$1.81 on $107\frac{1}{2}$ pounds. As only 99 per cent. of the duties are rebated the amount of drawback on 100 pounds refined is \$1.79. Using the foregoing figures the following statement, showing the comparative prices at which American sugar can be laid down at Liverpool, may be made:

	Cents.
Net price American granulated, f. o. b.	
New York, per lb	4.96
Deduct drawback of duties	1.79
Export price	3.17
Ocean freight, insurance, etc.	.08
Net price laid down in Liverpool	3.25
Net price, German granulated in	
Liverpool, per lb	2.76
Export bounty allowed by Germany	.38
Price, German granulated, Liverpool, plus bounty	3.14
Difference in favor of German granulated	.11

By this showing there is a difference of slightly more than 1-10c. per pound in Liverpool in favor of German sugar, and there are some of the most conservative members of the sugar trade who believe that an export business can be re-established under favorable conditions. There are, however, very few who believe any business of this character could be immediately established. It must await a return to favorable conditions; such, for instance, as the pacification of Cuba and the lapse of sufficient time to enable the sugar production of the island to assume its normal volume. The United States is the natural market for Cuban raw sugar, but this year (to December 22) the crop as estimated by Willett & Gray is only 218,693 tons. Last year the crop was 231,180 tons, while in 1895 it was 1,031,097 tons. Of the crops named, 209,417 tons have been received in the United States from Cuba this year, comparing with 261,140 tons last year and 804,811 tons in 1895.

It is evident, from the figures just given, that the comparative prices of American and German granulated sugars in Liverpool are under exceptionally favorable circumstances. The receipts of sugar in the United States amount all told to about 1,500,000 tons per year. With the curtailment of the Cuban crop it has been necessary to obtain supplies from other sources. This year's supply has been received from the following:

Cuba	209,453
Other West Indies	288,558
Brazil	49,496
Philippine Islands	11,657
Europe	637,133
Java	213,162
Egypt	49,060
Sandwich Islands	89,890
Other countries	28,943
U. S. domestic	9,313
Total receipts	1,586,966

The removal of the bounties means higher price of Cuban, as well as bounty-paid raw

sugar, since they compete in the world's market, and the price of one class adjusts itself to the price of the other. As a countervailing duty is charged by the United States against the export bounties, the bounties have slight, if any, influence upon the price here. It is claimed beet sugar can not be profitably produced for export in European countries without government aid, and the logical result of the removal of the bounties will, therefore, be to control production, though the sugar trade believe that prices would only partially reflect the removal of such bounties.—*New York Journal of Commerce*.

Personal.

Mr. H. C. Boas, a prominent planter of St. Mary parish, was in the city on a visit a few days ago. Mr. Boas made his headquarters at the Hotel Royal.

Mr. Oscar Zenor, of Avalan plantation, came up to New Orleans last Sunday and was the guest of Colonel Rivers' hotel during his stay.

Hon. A. V. Coco, of Marksville, La., was in the city during the past week and registered at the Hotel Grunewald.

Mr. B. C. LeBlanc, of Plaquemine, La., who is a prominent sugar planter and also an inventor of considerable renown, having patented a cane carrier feeder, which is in use on a number of plantations in this State, was in the city on a visit a few days ago. Mr. LeBlanc was accompanied by his brother, Mr. S. O. LeBlanc, who not only knows how to make sugar, but is also well posted on how to sell sugar after it is made. These two gentlemen stopped at the Grunewald.

We received a pleasant visit during the past week from Mr. George Schumann, of the Reading Iron Company, Reading, Pa.

We received a pleasant visit last Thursday from Mr. Newell Sanders, president of the Chattanooga Plow Company, who is down here on one of his frequent trips.

Mr. Max Rosenheim, chemical expert and all around good fellow from New York, is at the St. Charles. Mr. Rosenheim represents Maas & Waldstein, manufacturing chemists of Gotham, and does a large business with the planters in bleaching compounds and other specialties.

Mr. G. A. Jahn, an extensive rice dealer and miller of New York, was at the St. Charles Hotel during the past week. Mr. Jahn is down here on business matters.

Mr. H. L. Laws, of Cincinnati, who now has charge of the local affairs of the firm of L. C. Keever & Co., is stopping at the St. Charles Hotel. The Cinclare plantation of Mr. Laws in West Baton Rouge is one of the finest factories in Louisiana and he is constantly putting improvements on it to keep it abreast of the times.

Mr. C. S. Mathews, of the Georgia plantation, in Lafourche parish, was registered at the Hotel Grunewald on Tuesday. Extensive improvements will be made by Mr. Mathews in his sugar house this year.

Mr. S. Prejean, of Donaldsonville, near which place he possesses extensive sugar planting interests, was a recent visitor to New Orleans.

BEEET SUGAR.

Chino, California.

The continued dry weather is causing much uneasiness among the farmers. Work on the ground is being delayed, and grain seeding will be quite late. As for the sugar beet crop, there is as yet no cause to fear a lack of rain. The late rains are of more value than the early rains for sugar beets, and we yet have three months and more in which to get sufficient rains for the crop. There is yet every probability that we will have plenty of rain. But the delay in ploughing and preparing the land will at the best throw a great rush of farm work in a few weeks when the seed must be gotten in the ground. The sooner rain comes the better it will be. Prices of hay are advancing, and every day that rain holds off now will see the price go still higher.

Major George Easton came in yesterday, after spending Christmas at home in San Francisco. He says business is progressing here satisfactorily. Soon after the first year he will again commence a vigorous campaign of land selling. In the meantime the beet contracts for 1898 are being gotten in shape. About 3800 acres are already signed with Easton, Eldridge & Co., and the major says he will not need to go off the ranch to complete his quota for the factory. An important deal on which he is now figuring is the purchase of the Olinda ranch of 18,000 acres in Orange county, adjoining the Chino ranch on the south, and running along the Santa river for several miles. If the company secures this they will connect the two ranches and open up a fine system of roads across the hills. The Onelda is admirably adapted to dairying, and for that purpose will programme with the Chino ranch in fine shape.—*Champion, December 31.*

Watsonville, California.

The day crew is working at the factory this week, doing needed work.

The factory sliced the last beet of the 1897 campaign last Saturday night.

The campaign which closed on Saturday was not cut into by storms, and the mill had a most successful run—the average daily slicing being the highest ever shown by an American sugar-beet mill. If the growing season had been as favorable as the milling season the Watsonville factory would have shown a record-breaking year. As it was it made the best campaign of all the American mills, handling the heaviest tonnage and producing the most sugar.

The last beets of the campaign were sliced at 9:45 P. M. on Christmas day. Following are figures for the season: Hours run, 2483; tons (2000 pounds) beets sliced, 110,786; tons (2000 pounds) sugar produced, 14,888; acres harvested, 10,305; yield per acre, tons (2000 pounds), 10¾. Delivery of beets extended over a period of 130 days, commencing August 18 and finishing December 25. The mill's campaign lasted 119 days, from August 29 to December 25 inclusive. The yield per acre was low on account of an unfavorable spring.—*Pajaronian, December 31.*

Salinas, California.

G. B. Field, superintendent of construction of the steel work for the Spreckels Sugar Company's buildings, returned from a visit to the Risdon Iron Works, in San Francisco, which he represents, last evening. Mr. Field states that work on the buildings commenced yesterday, and as there are at present 100 car loads of material here and 100 more car loads coming within ten days, that work will be rushed through to completion. There are at present thirty men employed. Besides the construction, the Risdon Iron Works have the contract for the riveting to be done on the building, and Mr. Field says that there will arrive some thirty riveters from San Francisco the end of the coming week, so that the work of riveting may be commenced on New Year's day. Work will continue every day, except when it rains, as the company wish to have their portion of the contract completed before May 1, 1898.—*Salinas Index, December 25.*

Eddy, New Mexico.

Quite a large party of Eddy people will go up to Roswell on the noon train to-day to attend the ball and reception by the club of that city to-night. That a pleasant time will be enjoyed is a foregone conclusion, as the club members have a well-established record for hospitality. Most of those going will return tomorrow. A few will remain till Monday.—*Argus, December 31.*

Eddy, New Mexico.

The beet sugar company will plant about 2000 acres of beets the coming season, on the Vineyard, the Green Home place, and various pieces of company land in the valley. Over 200 Mexicans will be employed until after the thinning season is past. The company will, it is estimated, raise 8000 tons of beets on this acreage, and possibly 16,000 tons—all depending on the season and care given the beets. Manager Goetz will not request farmers to raise beets as a favor, but with those who have made a success in the last two seasons, contracts at \$4 per ton will be made, if the farmers so desire. No person will be contracted with who has not lived up to past contracts.—*The Eddy Current.*

Another Factory.

Jackson county, Wis., expects to have a large sugar factory built by the Northwestern Beet Sugar Company. When the company has sufficient money to build and operate the factory, it is to be given a large amount of land. H. B. Cole, of Merrillan, is chairman of the local committee in charge of the matter. The concern had planned to start in time to work up the '97 crop of beets, but its contract is now being extended to '98.—*Lehi Banner.*

A New Sugar Town.

The Colonial Improvement Company has filed articles of incorporation with the county clerk of Ventura county. The objects of this company are numerous and varied. The principal objects are to lay out town sites,

carry on a general real estate business, engage in and carry on the business of agriculture and horticulture, construct buildings to sell and rent, construct and operate electric light plants, acquire water rights, etc. The capital stock is \$150,000, divided into 1500 shares of the par value of \$100 each. The entire capital stock is all subscribed. The principal stockholders are Henry T. Oxnard, holding 748 shares, and Mrs. Aranetta Hill, holding 498 shares. The remaining 254 shares are held by N. R. Cottman, Carl Portius, C. Leonardt, L. W. Andrews, J. A. Drifill, John G. Hill, Ernest R. Hill and Thomas O. Tolond.

In an interview, Lewis W. Andrews stated that the corporation has acquired 300 acres of land in the vicinity of the sugar factory site. On Monday the board of directors, composed of five stockholders, visited the acquired lands and selected the site for a proposed town. It was their intention to name the proposed town Bayard, in honor of H. Bayard Cutting, an intimate friend of Henry T. Oxnard, but the name may be changed, owing to another railway station having a similar name. The town site will be laid out and improvements made immediately. This town site adjoins the Southern Pacific Railway track which has just been laid from Montalvo to the beet sugar factory, a distance of five miles.—*L. A. Times.*

Obstacles to the Development of the Beet Sugar Industry.

Editor Louisiana Planter: Passing over the railroad from New York to Chicago, stopping off at all the principal stations, one can not but note the interest taken at each to secure a beet sugar factory. Farmers' meetings are being held to discuss beet culture and the securing of contracts for the growing of beets with a view to enlisting capitalists to erect factories. Following these efforts a canvass is made among local capitalists, and here the difficulty begins, not however generally understood by the average solicitor, as it is plausibly concealed. The representatives of the sugar trust, the local wholesale grocers in co-operation with the trust, who get a commission or drawback allowance on every pound of sugar furnished their locality through them, equal to about \$1 per barrel, at once become interested. No retailer can obtain sugar from the trust. He must get his supplies of the wholesale grocer, who, in combination with the trust, helps to maintain uniform prices and such as will enable him and them to obtain a small profit.

They, the trust, and the wholesale grocers, do not want local sugar factories where the consumer can buy direct or the retailers can get their supplies, leaving them out; they are, therefore, on the alert to discourage and defeat every effort to secure a beet sugar factory, not openly, but stealthily, and many times under cover of the pretence that they are in favor simply to get inside and steer in such manner as to compass defeat.

Thus the great effort being made by the government to encourage the production of our own sugar falls dead, and but few are able to account for it or know how it is accomplished. The law against combinations to affect prices

is violated and ignored and government defied. What are you going to do about it? they plainly say. In the meantime they remain in control and are able to kill off every attempt at fair competition, and farmers find their share in the promised new industry of growing sugar beets for a home factory effectively blocked and their efforts paralyzed.

R. H. DAVIS.

New York, December 28, 1897.

Sugar Beets and Beet Sugar.

The directors of the Owen Sound (Ont.) Beet Sugar Company have formulated a memorial to the Ontario government, asking for a bounty of half a cent per pound on all sugar made from beet in Ontario, on condition that the beet growers get \$4.50 per ton for their beets, and a delegate to Toronto to lay the subject before the house. They will also ask the town of Owen Sound for a bonus of \$20,000 and some other privileges. They talk of building a factory.

A factory with 1000 tons capacity is to be built at Toledo, O., in time for next year's crop. Local parties have subscribed the funds.

Binghamton, N. Y., has arranged for a beet sugar factory for 1898. The machinery will be taken from a French factory at St. Just, 150 miles from Paris.

There is only one sugar factory between the State of Wisconsin in the Northwest and the State of Nebraska in the middle West, and the Eastern Atlantic coast, and that is in the State of New York.

There are good prospects that sugar beet culture will be engaged in in the neighborhood of Quincy, Ill., in the near future, and on an extensive scale. The Chicago, Burlington & Quincy Railroad Company is interested in a plan to induce the farmers to go into the business.—*New York Shipping List.*

The La Salle County (Illinois) Committee's Report on the Beet Sugar Industry at Grand Island, Nebraska.

The committee appointed to investigate the beet sugar industry at Grand Island, Neb., reports as follows:

After careful inquiry and investigation among the farmers and others, it is the conclusion of the committee that the beet sugar industry at Grand Island is a success.

The sugar factory being a private institution, the details of the business could not, of course, be made known to the committee, and the estimate presented of expenses and profit of a plant similar to the one at Grand Island is made up from data secured by observation and other sources.

In the matter of beet growing, very definite and certain figures can be given. The results demonstrate that the average cost of growing beets at Grand Island is \$27 to \$30 per acre.

Mr. Starke, who has 100 acres, estimates his cost at \$27.50 per acre, as follows:

	Per Acre.
Seed.....	\$2 00
Work on beets until laid by.....	15 50
Harvesting and delivery at factory.....	10 00
	\$27 50

Mr. Starke hires all his labor and much of it is done by the acre. He estimates that the beet tops are worth \$1 per acre for food,

The yield of his crop is twelve tons per acre this year. The sugar content will average about 15½ per cent. His receipts are \$48 per acre; expense \$27.50—leaving him a net profit of \$20.50.

The variety of beets that he raised this year is the Hoerning Improved Klein Wanzlebener, which is an early maturing variety and a kind that would probably be best suited for La Salle county.

Mr. Glese, who has been raising beets since the factory started, seven years ago, gave the committee a detailed account of the expense per acre of raising beets as follows:

Rent of land.....	\$6 00
Ploughing and planting.....	2 25
Twenty pounds of seed at 15 cents.....	3 00
Cost of cleaning and thinning.....	11 00
Cultivating.....	1 50
Harvesting.....	4 50
Hauling to factory.....	3 50
	\$31 75

His crop of twenty-five acres is yielding this year fourteen tons per acre, which at \$4 per ton brings \$56 an acre, or a net profit of \$24.25.

Mr. Glese's farm is near the factory and some adjoining land sold for \$125 an acre. Another adjoining field is in corn that will yield forty-five to fifty bushels per acre, which is worth 12 cents per bushel, or \$6 per acre, against Mr. Glese's \$56, on precisely the same kind of land.

The Sass Bros., who are raising 115 acres of beets on their mother's farm, give their expenses for labor at \$11 per acre. The balance of the work they do themselves, there being six of them to do it. Their crop is averaging ten tons per acre, all above the 12 per cent. sugar content.

Their crop did not yield as well this year as last.

Many farmers were asked at Grand Island why they raised beets in preference to other crops and the reply invariably was because beets paid better and were more certain than any other crop, and in seasons when everything else was a failure beets paid at least the cost of producing.

Much of the labor in the fields at Grand Island is done by women and children. This labor is used because it is offered. Many of these laborers are foreigners, who have come to this country poor and of necessity must work, and they naturally take to the work they have been accustomed to in the old country. Many of the farmers employ their whole family in the field. They do the same thing when they raise corn or any other crop. The large returns for beets will enable a farmer to employ any kind of labor he thinks best.

It is the opinion of this committee that in La Salle county one man can prepare the ground, plant and cultivate five to eight acres of beets. Figuring on a basis of five acres per hand, the cost of growing beets in La Salle county is estimated as follows: One hand for three months, May, June and July, at \$20 per month, would make a cost for preparing the ground, planting and cultivating, \$60 for five acres, or \$12 per acre.

It is not considered that one man would need to be employed continuously on five acres and the time employed at other work would pay his board. This would bring the beets up to the time they are laid by. The additional expense would be \$2.70 per acre for seed, \$5 per acre for rent, \$4.50 per acre for harvesting and \$5 per acre for delivery of beets at factory—in all a total of \$29.20 per acre.

It is reasonable to believe that an average of fifteen tons of beets can be grown in La Salle county to the acre. This would bring a return of \$60 per acre at an expense of \$29.20, or \$30.80 net profit.

It is the unanimous opinion of the committee that our best lands around Ottawa will produce at least 25 per cent. more of beets to

the acre than the lands around Grand Island, for the reason that our soil is much stronger and richer, and for the further reason that we produce better crops of other kinds. It is also a fact that all kinds of crops in La Salle county are more certain than they are in Nebraska. This would surely make a good beet crop in La Salle county more certain than in Nebraska.

Beets are planted in Nebraska in rows 14 inches apart, and they are thinned in the rows to 10 inches apart. Where a large acreage is grown a 5-row drill is used and also a 5-row cultivator.

There is considerable complaint among the farmers of Grand Island, that they are not treated fairly in the matter of weights and tare.

Each wagon load of beets taken to the factory is sampled by taking from the load a half-bushel basket of beets. These are weighed, then thoroughly washed, and the tendrils scraped off and if any of the beets are not topped close enough to suit another slice is taken off.

The samples are then weighed and the difference between the first and second weighing determines the wear and tare on the whole load. If a small slice is taken off of each beet in the sample basket, it is equal to cutting off just so much from every beet in the load. If the part cut off the sample has any value, the factory gets that much of the load for nothing.

At Grand Island, the pulp, which is a good food, owing to the cheapness of other feed (hay 75 cents to \$1 per ton in the field, and corn 12 cents per bushel) is not made much use of. The lime refuse, which is a valuable fertilizer is not used at all.

It is thought that the pulp and lime refuse would be made much use of by La Salle county farmers, had they an opportunity. It is said that if the tops and all the refuse from a beet sugar factory is put back on the land, so that nothing is taken off but the sugar, that there will be no loss from the soil, since the sugar is made by chemical action through the leaves from the air and sunshine.

The factory at Grand Island contracts with each farmer in advance to raise so many tons of beets, for which the factory agrees to pay \$4 per ton for beets delivered at the factory that contain 12 per cent. of sugar and have a purity coefficient of 80 per cent. Each farmer also agrees to buy his seed of the factory at 15 cents per pound, and to plant not less than 18 pounds to the acre, in order to secure a full stand. The factory further agrees that should any beets grown under their contract fail to come up to the standard of 12 per cent., with a purity of 80 per cent., that they will take all that go 11 per cent., with 75 per cent. purity, at \$3.25 per ton, and beets containing not less than 10 per cent. sugar, with 70 per cent. purity, at \$2.50 per ton.

Lands around Grand Island near the sugar factory are worth \$75 to \$100 per acre. If these lands were used exclusively for the ordinary farm crops they would not be worth over \$25 to \$35 per acre. But the large profits of sugar beet growing brings up the price of farm lands to more than double what they would be without a market for beets.

When the factory was first put into operation there was considerable difficulty in getting the farmers to raise beets to keep the factory going. Now the factory people can secure double the quantity of beets they can use.

Many persons at Grand Island, who know something of sugar beet growing and beet sugar making, claim that the factory is making this season a profit of not less than \$1000 per day.

The following figures would seem to confirm this estimate. In the estimate the expert and official help, insurance, repairs, expense of selling sugar, and the incidentals are figured on the basis of one year's time, but reduced to so much per day for 100 days. The other

Items are figured on a basis of a 100-day campaign. The committee's estimate of the cost per day for running a factory similar to the one at Grand Island, Neb., where 160 men are employed, 80 at night and 80 during the day, is as follows:

15 men, expert and official help paid by the year, a total of \$24,680 for 100 days, would be per day.....	\$246 80
20 skilled laborers, night and day, or 40 one day, at \$2.50.....	100 00
45 common laborers, day and night, or 90 for one day, at \$1.50.....	135 00
80 tons of coal, at \$3.50.....	280 00
Limestone, coke, etc.....	62 00
Oil.....	3 00
Linen, for filters.....	4 80
Lights.....	5 00
Sacks, etc.....	64 00
Repairs on machinery.....	30 00
Expense of selling sugar.....	15 00
Stationery and incidentals.....	10 00
Insurance.....	30 00
350 tons of beets, at \$4.....	1400 00
	\$2385 60

The general average sugar yield of beets in the United States is said to be 12.7 per cent. A factory extracts all this sugar matter except .02 to .03%. At Grand Island 350 tons of beets are worked a day, from which is extracted, say, 12.7 per cent. of sugar (although the amount this year is probably nearer 14 or 15 per cent.); this would make 44½ tons of sugar, which, at 4¼ cents per pound, or \$90 per ton,

Would produce each day.....	\$3,982 50
Deducting cost and expense.....	2,385 69

\$1,596 90

Deducting \$1000 profit each day.....	1,000 00
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\$596 90

would leave \$596.90 per day for loss of refining.

A factory at Ottawa could secure slack coal at a cost of not over \$1.25 per ton. The lime rock would not cost over half the estimated cost in Nebraska. On these two items, the saving would be:

On coal per day.....	\$180 00
Limestone, etc.....	31 00

\$211 00

or \$21,100 for a campaign of 100 days.

The abundance of artesian water here, that would flow into a factory without pumping, would be a very important item and would make a saving in both coal and labor.

If the farmers of La Salle county are disposed to follow up the investigation of this industry by growing next year a large number of experimental patches of beets, the committee would suggest that the following varieties of seed be used: The Hoerning Improved Klein Wanzlebener, the original Klein Wanzlebener and the Vilmorin. The first matures early, yields well and is rich in sugar. The second produces a large tonnage, but later maturing. The third is very rich in sugar.

The beets that have been tested at the agricultural station at Urbana, Ill., and thus far reported upon, show the following results:

Samples from —	Per Ct. of Sugar.	Purity Coefficient.
James Ford.....	15.49	81.42
Fiske & Beem.....	14.67	81.23
W. E. Pritchard (lot 1).....	15.11	83.68
W. E. Pritchard (lot 2).....	14.54	81.88
J. N. Dunaway.....	13.77	78.80
Lorenzo Leland.....	14.96	82.29
I. B. Lovejoy.....	14.30	85.03
L. E. Sampson.....	16.34	87.76
Gibson Strawn.....	16.53	85.25

There are a number of samples out that have not been reported on yet.

Those who have weighed their beets and

measured the ground on which they were grown report the yield as follows:

	Tons Per Acre.
Mr. Lorenzo Leland.....	32½
Mr. I. B. Lovejoy.....	22
Mr. Frank Beach.....	20

At this rate Mr. Leland's crop, at \$4 per ton at the factory, would pay him \$130 per acre, Mr. Lovejoy would get \$88 per acre and Mr. Beach \$80.

It is possible to produce a much larger crop than Mr. Leland's. A perfect stand of beets, with rows fourteen inches apart, thinned to ten inches, would produce, with beets averaging two pounds each, about forty-four tons per acre.

From experimental patches grown in New York State, yields as high as fifty-four and fifty-six tons per acre have been reported.

If La Salle county can produce an average of fifteen tons per acre, and it is reasonable to believe this can be done, then beet raising would prove the most profitable farm crop that could be grown.

The ownership of a beet sugar factory by the farmers puts them into the advantageous position of men who as farmers are guaranteed a definite price for the production of the raw material, which they consume as manufacturers, and they are stimulated by their own interests to maintain their beet culture at the highest point of efficiency, both as to yield of beets per acre and per cent. of sugar content, and they receive the entire profit from both operations—growing the beets and making the sugar.

If 350 farmers in La Salle county are disposed to raise, each of them, ten acres of sugar beets and invest the proceeds of this crop for two years in a beet sugar factory, it will more than build a 350-ton plant. In other words, the farmers would turn in their beets for stock in the factory, and they would be the sole owners of such factory.

The details of the proposition are as follows:

Three hundred and fifty farmers are to raise each ten acres of beets.

Ten acres at twelve and one-half tons per acre would be 125 tons.

One hundred and twenty-five tons at \$4 per ton would bring \$500.

Two years' crop would bring \$1000.

350 farmers pay in cash for stock, each.....	\$300
350 farmers pay in note, 1 year, 6 per cent. for stock, each.....	200
350 farmers pay in note, 2 years, 6 per cent. for stock, each.....	400
Total amount of stock for each.....	\$900

The first year's crop of beets worth \$500, would pay back the \$300 cash advanced and the first note of \$200, less the interest. The second year's crop of \$500 would pay the second note of \$400, less the interest, and leave a balance of \$100 in cash. So that at the end of the second year each farmer would have \$900 in stock in the factory and \$100 in money.

This arrangement would produce a capitalization as follows:

350 persons, cash for stock.....	\$300	\$105,000
350 persons, note 1 year, for stock.....	200	70,000
350 persons, note 2 years, for stock.....	400	140,000
		\$315,000

These notes, with the stock they represent as collateral security, could be used without any doubt to secure cash to the face value of the notes.

Thus giving a company cash to pay everything, without any bonded debt or deferred payments.

It would also produce the entire capital nec-

essary to build a sugar factory from the product of ten acres of beets in two years.

Nor would the money need to be paid until the beets were raised, excepting the \$300 cash payment, and even that would only need to be advanced for a few months ahead of the first crop, from which the money is returned.

This estimate is made on a crop basis of twelve and one-half tons per acre. If the yield should be fifteen tons it would make the beet crop worth for two years \$1200. This would leave each farmer a surplus of \$300 above his stock. Then, should the factory pay a dividend of 10 per cent. each year, it would further increase this surplus to \$480 in cash, besides the \$900 in stock, from the ten acres of beets.

E. H. STRAIT,
JACKSON SHAVER,
J. N. DUNAWAY,
M. P. TRUMBO,
C. E. FISHER.

Ottawa, Ill., Nov. 20, 1897.

Progress of the Beet Sugar Industry.

The success which has marked the development of the beet sugar industry in California during the past decade has been gratifying to those who have worked to that end, and now see it firmly established as one of the leading industries of the State. The abundant evidence at present afforded of capital rapidly flowing in this new direction attests the depth of the channel and the suitability of the ground. New factories are being built and the capacity of existing plants enlarged. Thousands of additional acres are being planted to beets. Withdrawn from less profitable uses, such as grazing and grain raising, they will not only yield larger returns to the farmer, but will give employment to a vastly larger number of laborers.

Many causes have contributed to bring about this result at this time. The prolonged and extreme depression in agriculture and the poor prices obtained for farm products generally compelled farmers to consider the claims of this new industry.

The four factories now operating in California will turn out this season about 37,000 tons of sugar, as follows:

Alvarado.....	7,500 tons.
Watsonville.....	14,000 "
Alamitos.....	3,000 "
Chino.....	12,000 "

Total..... 37,000

As the season is not yet concluded, these figures are approximate only, but will be found to be substantially correct.

The estimated output for 1898 is as follows:

	Tons.
Alvarado.....	10,000
Watsonville.....	15,000
Alamitos.....	10,000
Chino.....	12,000
Salinas.....	30,000
Hueneme.....	12,000
Total.....	89,000

The addition of the two last named factories will more than double the present production of sugar in California. Together they represent an investment of \$5,000,000.

When the annual production is raised to 90,000 tons, California will still be producing less than 5 per cent. of the total sugar required for consumption in this country, so that

whatever risks may attend the course of the trade, that of over-production will not be one of them for many years to come.

The promise of permanence given by this valuable industry makes it desirable that everything possible should be done to safeguard and to cherish it as one of the chief resources of California. The changing conditions of the trade have rendered inevitable the establishment of many new concerns, all of which, however, can find room for their operations.

An auxiliary business which might, with advantage, be entered upon at an early date is the production of beet seed on a large scale by expert horticulturists. The best qualities are at present imported from France and Germany, where art of producing, by repeated selection, the most perfect kinds of seed has long been carried on. This country could certainly produce its own, and thus save not only the cost of freight, but the deterioration due to the ocean voyage.

It is also noteworthy that in Germany one-fourth of the entire sugar production is carried on in co-operative factories, the farmers holding considerable number of the shares. The best possible results would follow to all concerned if some plan could be devised by which farmers might subscribe for shares in a company's stock, for at once an identity of interest would be established that could not fail to conduce to the welfare of both parties.

California is face to face with the opening of a new era. In swift evolution from one phase to another of her industrial progress she enters now upon a path which demands a closer union and a stronger social bond, but which, given these, leads to a greater wealth than the past can show.—*Claus Spreckels, in S. F. Call.*

Sugar and Reciprocity.

WASHINGTON, December 23.—The action of the French chambers a few days ago in regard to the duties upon hogs and hog products is not regarded at the State Department as a serious menace to reciprocity negotiations. The elections for the chambers are not far off, and the same appreciation of good politics which often prevails in this country is tempting the French politicians to "do something for the farmer." The increase of the duty on hog products is only one of these propositions. Plans for agricultural banks and for the creation of the warehouse system, including loans by the banks upon warehouse receipts, are among the propositions which are now being warmly debated in the French chambers. The proposed duty upon hogs is not directed so much against the United States as against the countries bordering on France, for it is from those countries that most live hogs enter the republic. There has not recently been a minimum tariff upon hogs, but only a single rate against all countries except where special reciprocity treaties have been made.

The French tariff contains maximum and minimum rates upon the same articles, but it is understood at the State Department that the minimum rates can not be conceded by executive action alone without the approval of the chambers. This places concessions under the

minimum tariff upon a similar footing with more sweeping concessions from a parliamentary point of view, but concessions which do not go below the minimum tariff have probably a better chance of adoption by the legislative branch of the government. Negotiations with France have been at a standstill since it was found that no agreement could be made under Sec. 3 of the Dingley law before the departure of Ambassador Patenotre. Nothing further of a serious nature will be attempted until the new ambassador has presented his credentials to President McKinley. Somewhat the same situation exists in regard to the German Empire, whose ambassador will not enter upon formal negotiations until he receives full instructions from the imperial government.

An important element in the agreements to be made with France, Germany, Austria-Hungary, Belgium, the Netherlands and Spain is the question of bounties and countervailing duties upon sugar. It is probable that the completion of negotiations with the bounty-paying countries, which include all of the above-named except Spain, will be delayed until after the conference which is to be held regarding the abolition of the bounties. The fact that negotiations for such a conference were making rapid progress became public through the announcement of Baron Thielman, the imperial minister of finance of Germany, some ten days ago, and through the dispatches to the *Journal of Commerce and Commercial Bulletin*, showing that Austria-Hungary was the author of the project of abolishing the bounties. There is little doubt of the adhesion of France to such an agreement, and it would not be surprising if the bounty system were swept away within the next few months.

The European governments act with a reasonable degree of promptness when they make up their minds to a step of this kind, as is indicated by the recent convention regarding the coinage of the Latin Union, which was signed on October 29, only a few months after it was proposed by Switzerland. The folly of taxing the entire country for the purpose of laying down sugar abroad at a price less than the cost of production, has been coming home to all the beet sugar countries, since each has endeavored to vie with the other for the sugar markets of the world. The abolition of the bounty system would greatly facilitate trade reciprocity negotiations between the beet sugar countries and the United States. If Ex-Minister Kasson, who is in charge of reciprocity negotiations, is advised that this project is making progress, he will probably delay any serious effort to make reciprocity agreements until the matter is acted upon.

This will not necessarily prevent, however, the tentative consideration of other mutual concessions, pending the abolition of the bounty system. In the case of Spain bounties have never been paid upon the production of sugar in Cuba or the Philippines. The Spanish government has intimated a desire, however, to delay reciprocity arrangements until civil government is more firmly established in the eastern provinces of Cuba, and it will probably promote the convenience of both

parties to delay the negotiations until the problem of the bounties has been settled by the beet sugar countries.

The question of the sugar duties has many ramifications and even extends to the Argentine Republic, which appears to be the only cane-sugar country paying export bounties. This is one of the reasons why the government of the Argentine Republic considers itself hard hit by the Dingley law. Not only were hides transferred from the free to the dutiable list and a high duty imposed upon raw wool, but the efforts to develop a cane-sugar industry have been partially throttled almost at their birth by the countervailing duty of the Dingley law.

This has naturally caused the Argentine government to look askance upon the alleged friendly feeling of the United States, and little progress has thus far been made toward reciprocity negotiations. It is so greatly for the interest of both parties, however, to exchange products that a treaty will probably be made when the present feeling in the Southern Republic has partially subsided. Even after bounties are abolished upon beet-root sugar, the question of concessions to sugar growing countries will require delicate handling, because each will object to larger concessions to its rivals than are granted to itself. If special concessions are made to Spain in regard to cane sugar from Cuba and the Philippines, benefits would probably result to the producers of these islands which would tend to restore their supremacy in the American market and restrain the importation of beet sugar, which has lately been growing. Brazil is also capable of a considerable production of cane sugar and may obtain concessions from the United States. The Brazilians were not entirely satisfied with the position in which they were placed by Secretary Blaine, when concessions in favor of their sugar were followed by similar concessions to other countries, and they will be extremely cautious in making a new arrangement.—*C. A. C., in N. Y. Journal of Commerce.*

The Adulteration of Molasses.

Local jobbers in molasses are considerably concerned at present over the increasing extent to which adulteration of this article is said to be practised in the South. It is claimed that the use of substitutes and other ingredients in the treatment of molasses has grown to such proportions that comparatively an insignificant percentage of the total product is now placed on the market in a pure condition. While the use of adulterants dates back many years, it is only comparatively recently that the practice was adopted extensively in the South. The reason for this is partly to be found in the adoption of the centrifugal process of refining sugar, which extracts a much greater percentage of sugar from the cane and thus leaves a smaller molasses product. A shortage in supplies a few years ago gave additional inducement to "extend" the crop while the decreasing cost of glucose, the principal adulterant, further increased the margin of profit on the mixed article. The practice of mixing is now said to

have been carried even to the plantations, so that a purchaser who buys his goods direct can not be certain that they are absolutely pure.

To the use of glucose but little objection would apparently be raised if only the mixed article was sold as such, but this it is alleged, is rarely the case at New Orleans, and that as a result the country is being supplied with an inferior article which is sold as strictly pure, and that the consumer, who can detect the difference only by actually using the goods, is becoming suspicious of all molasses.

The Southern merchants are also said to be selling direct to the customers of jobbers here at about the same prices as to the jobbers themselves, and in small quantities; but this, jobbers seem to think, is a matter that will regulate itself.

Several members of the local trade were conversed with recently in regard to this subject. Louis A. Naisawald, a local broker, when questioned, said: "New Orleans is getting from 23 to 30 cents per gallon for pure molasses on the levee. Now, molasses similar in color is being sold for shipment from New Orleans to New York, Philadelphia, Albany, Syracuse, and, in fact, nearly all other markets, at prices ranging from 20 to 27 cents delivered, even in as small lots as five barrels. It costs 3 cents per gallon for freight to New York, and there are, of course, other charges, such as coopering, insurance and commissions, which easily add another cent, so that molasses costing, say, 28 cents f. o. b., New Orleans, would cost 32 cents laid down in New York. We have many buyers who are perfectly willing to pay these prices, but can not afford on account of the keen competition of these mixtures, which are guaranteed pure, but which are absolutely nothing but rank adulterations, being composed principally of glucose, cheap centrifugals, a dash of cane juice, and finished off by aid of powerful chemicals in making the necessary blend and bleach, thus giving them style and character of pure fancy open-kettle new crop New Orleans molasses.

"We have had more or less of this competition to contend against every season, but this year it seems to be greater than ever, and the result is that this and near-by markets are in a completely demoralized condition, buyer and seller being entirely at sea as to what their goods are really worth. In my opinion there is no article of food in which more abuse and deception is practised by means of adulteration than in molasses. Many of our buyers complain that they are not selling, and do not have a demand for molasses as they used to, and this can easily be explained by the decided inferiority of these substitutes. The consumer finds that the supposed molasses does not give satisfaction, and consequently stops using it.

"In my opinion the only remedy is severe legislation. We have pure-food laws in various States. Massachusetts and Connecticut are apparently willing to accept this molasses provided it does not contain any artificial glucose. Ohio and Pennsylvania, I believe, permit the sale, but provide that it must be designated on the package as a compound."

Another broker said: "About three years

ago nearly every molasses dealer in New Orleans was summoned before the Board of Health of that city, but they were not convicted, and the business has prospered ever since. As near as could be learned the samples of but one house were found to be pure.

"I do not object to the mixing of glucose with molasses so long as the mixture is sold as such. There is a large mixing business carried on in the North, but most mixed goods are sold for what they are, at least in the wholesale trade. Whether the ultimate consumer buys them as such I can not say. Glucose has been used in mixing molasses since 1867. New Orleans uses about 100,000 barrels a year, while her molasses product is about 350,000 barrels, so that, roughly about one-third to one-quarter of the total is glucose. When the goods get here they have another third of glucose added. This adulteration is undoubtedly killing business in pure molasses.

"As to bleaching, that has been practised ever since 1798. At present there are various processes. Practically all molasses is bleached, and I see no objection to this so long as the molasses is not injured. If the goods are only sold for what they are there would be little trouble."

A leading jobber said: "Adulteration first began to be practised on an extensive scale in Louisiana a few years ago, when there was a short crop. The trade in pure molasses has undoubtedly suffered from this sort of competition, and jobbers here have also seen New Orleans sell over their heads to interior markets. I believe, however, that this is an evil which will work out its own cure."

James H. Post, of B. H. Howell, Son & Co.: "I was not aware that the adulteration of molasses had increased this year, for I had supposed that any increase was impossible. It is very difficult to get molasses that has not been brightened up in some way or other. I believe that these adulterations are injuring the trade by causing a reduction in consumption, especially in view of the low prices of sugar."

Another member of the trade said: "In bleaching, zinc dust and acids are used, and this, I believe, is injurious, while mixing in glucose is not. The adulterations are unquestionably injuring the business. I think it is a fact, however, that the practice was introduced in the South from here."—*New York Commercial Bulletin*.

A Syrup Mixers' Conference.

A meeting of syrup mixers, for the purpose of effecting a permanent organization, with a view to regulating prices and securing more favorable terms from the Glucose Trust, has been called at Chicago, for Monday, November 15.

Several members of the trade in New York stated to a representative of this paper yesterday that the Eastern mixers will take little or no part in the conference, owing to the fact that the Eastern and Western mixers have not the same grievances. The Western dealers, according to these gentlemen, are more directly concerned in stopping the output of syrups by the trust, and are willing to swallow the rebate plan, while the Eastern members of the

trade object to the proposed rebate agreement and are not much concerned about the syrup production in the West, as it does not interfere materially with the marketing of their product.

It is the intention of the Eastern men to allow the Western mixers to come to an understanding, and then meet them on some common ground to resist the trust's demands.

The market here for trust goods continues dull, as the mixers are buying only sufficient for their immediate needs, except from independent concerns, looking for further relief by the help of the new establishment now being pushed to completion.—*N. Y. Shipping List*.

A New Sugar Bounties Conference.

According to a statement of Herr Von Thielmann, the German Secretary of Finance, before the Imperial Diet, negotiations on the subject of the abolition of the bounties have once more been renewed, and this time, he said, with better chances for a successful issue. He did not say between what powers these negotiations were taking place, but as the *Times* states that the conference will probably take place at Paris, it is to be assumed that France as well as Germany, Austria, Holland, Belgium, and our own country, will all be represented. On the strength of the rumors on this question, coupled with the previous cheapness of sugar and the condition of supplies, the market has risen about 10½d. per cwt. from the lowest point, or, say, two-thirds of the amount of the German bounty. In addition to the facts disclosed in the statement of the German Finance Minister, it appears that in the case of Austro-Hungary a conference has been recently held at Vienna of the delegates of the Ministries of Agriculture, Commerce and Finance for the two halves of the empire. On the subject of export sugar bounties a resolution was passed, asking the Austro-Hungarian government to take the initiative in negotiations by the different countries for the abandonment of the bounties. In France, where most difficulty would arise, it is understood that the leading authorities in the trade are now in favor of a similar course. No doubt France would give up direct export bounties, if Austria and Germany did the same; but the French internal bounty, which equals about 3s. 10½d. per cwt. on the exports, would be harder to deal with. France, owing to her small consumption, must export a large proportion of her beet crop, and her yield is, roughly speaking, only 11 per cent. of sugar from a given weight of roots, while in Germany the yield is nearly 14 per cent. France would probably insist in giving a bounty while this discrepancy lasts; but, given the desire to abolish bounties, this point is capable of adjustment by some pro rata concession to France.

The working of the indirect French bounty is difficult to trace, as it amounts, briefly, to a reduced home duty on any improved yield which the manufacturer may obtain beyond 7.75 per cent. The excess yield is (until competition becomes too strong) sold in France as if the full duty had been paid upon it, whereas, as a matter of fact, only half duty has been

paid. The extra profit thus obtained at home (while competition allows it to last) can be, and is, used to enable French sugar to be exported at a lower price than could otherwise be the case, the home French consumer indirectly bearing the loss. The full duty on sugar in France being 60 francs per 100 kilos., the half duty on the surplus yields is, of course, at the rate of 30 francs per 100 kilos. This might be met as follows: When the French yield in any season rises to 12 per cent. the reduction in duty, in the following season, on the excess yields should fall to 20 francs only; if the yield were 13 per cent. it should fall to 10 francs, and if it reached 14 per cent., then the surplus yield should enjoy no reduced duty, but be charged the full 60 francs duty. These figures are, of course, taken broadly, and without dealing with fractions, but may be taken as illustrative of the nature of a possible arrangement with France, which would not hurt German producers except to a small degree during the current season of good yields, before the reduction in the premium had followed upon them. To apply a remedy of the sort during the course of a season might be very difficult, from the intricate details, and it would also be unfair to the more skilful individuals and fabricants.

Assuming the French difficulty to be settled, from Russia, Belgium and Holland no special difficulty is likely to be raised. It appears certain that not only the governments, but the sugar manufacturers of Germany and Austria are really very anxious to get rid of the bounties. In France the opinion among those interested is less distinct, but it seems that many of those chiefly interested have arrived at the conclusion that they would be better without the bounties. It would, therefore, appear clear that the time is opportune for renewing negotiations on this subject, at any rate among those who give the bounties. Whether those foreign nations who receive them should also join raises a more controversial point, for the abolition of the bounties would mean, according to the West Indian planters, a rise in market values of, say, 1s. 6d. per cwt., or, say, on our consumption, £2,100,000 a year. Our government, however, is apparently prepared to face all the great difficulties of the subject, and to meet the charge of seeking to raise the price of a necessary of life. According to current (and, we hope and believe, baseless) rumors, our cabinet is prepared to agree to go to the length of imposing countervailing duties, in order to secure the abolition of the bounties, acting of course in the supposed interest of the West Indies.

The entire value of the production of sugar, molasses and rum in the West Indies and Demerara is £3,000,000 a year, and in order, it is asserted, to save this industry from destruction, we are invited, even if countervailing duties are only threatened, as a weapon in reserve, to pay £2,100,000 a year more for the first cost of our sugar, and probably a further £200,000 in the shape of profits and charges due to this increased cost. If countervailing duties were actually imposed, the charge upon us would be far heavier, for reasons not needful to detail here. In considering what beneficial

effect the change would have upon the West Indies, the first question that arises is, whether a rise in sugar of 1s. 6d. per cwt. would be likely to be permanent, and whether England would thus be in a small measure repaid for sacrificing her interests to those of her colonies. It appears, as a matter of fact, exceedingly doubtful whether any permanent rise in sugar would follow the abolition of the sugar bounties. It must be remembered that the immense sugar crop of Cuba has been almost destroyed during the revolution, and that directly things are settled, the production will in all probability increase by some three-quarters of a million of tons. Then the price of the roots, from which the German sugar makers work, is so high as to admit of a heavy reduction in case of necessity, and there seems very little doubt that within a year or so beet sugar, without bounties, could be profitably produced in Germany at 9s. per cwt., and granulated at 10s. 6d. or 10s. 9d.

Supposing the bounties of sugar, as they now exist, to be abolished, there is nothing to prevent their revival under another form. Preferential railway rates for export are common things where there are State railways, and our own companies facilitate such matters by giving specially low quotations on imported foreign goods. Then while the protective system lasts on the continent, and imports of foreign sugar remain impossible there; a Kartell or syndicate, such as that existing in Austria, or the Nomirovka in Russia, can readily arrange to purchase the home consumer, to whatever extent may be necessary, in order to enable the beet sugar producer to compete to advantage with cane sugar of England and other great markets. Further, the carriage from the continent is 6d. per cwt. less than from the West Indies, and to the Northern and some of the midland counties is less. Then some colonies, such as Demerara, have to import labor at cost of 1s. per cwt. of sugar produced. Again, muscovado sugar, still the chief product of the West Indies, is practically unsalable in England at any reasonable price. On these grounds it is exceedingly doubtful whether the price of West Indian sugar would permanently rise if the bounties were put an end to, particularly as cane sugar seems to be producible more cheaply elsewhere even than in the islands.

On the whole, it appears improbable that the aim of the agitators against the bounties would be attained, namely, that there should be a corresponding and permanent rise in the price of sugar. If this be so, by the threat of countervailing duties our government would temporarily, at any rate, inflict a heavy fine on the British consumer; while in return, for probably no permanent gain to the West Indians whom it was intended to benefit, we should have made a heavy breach in the free trade policy, to which the extraordinary prosperity of our country has been due during the past half century. This would surely be a heavy price to pay for what would probably prove at the best an illusory gain. So far as the sugar trade in this country is concerned, they are sick of bounties and would be glad to procure steadier markets

by their sacrifice. Such considerations, however, are partial and narrow, compared with the immense national interests at stake.

There thus seems no necessity for the question of countervailing duties being raised, even if a conference of the powers be summoned on the bounty question. Considering the doubtful results of countervailing duties upon the price of sugar, and the enormous difficulties in the way of again taxing a necessary of life (to say nothing of the reversal of our whole free trade policy for a doubtful gain), it is to be hoped that if negotiations are renewed, our government will refrain from bringing a hornet's nest about its ears, if, as appears clear, the bounty question can be settled without dealing with this difficulty at all.

We have for some time past pointed out the extreme difficulties in the way of imposing any fresh sugar duties in this country. One most serious obstacle occurs to us. Countervailing duties from their nature would be levied only on a portion of our imports. Of late years English confectionery, chocolate, biscuits and cakes have secured a considerable export trade in Europe and elsewhere. This trade is a direct consequence of cheap sugar. If a duty were levied on sugar, this branch of business would (apart from the losses inherent to the fact of the reimposition of duties) be seriously hampered, if not destroyed, unless a drawback were granted. If this drawback were given on the whole of the sugar in all the confectionery, etc., exported, it might amount to a heavy bounty, because the goods might have been made from duty-free sugar, only a part of the imports being dutiable. In this case the revenue would suffer. If in order to get out of the difficulty a drawback were refused, this promising new trade would suffer or perhaps come to an end. We, also, is to assess the proportion of sugar in a lollipop or in a pot of marmalade? This drawback question would be even more serious in the case of the heavy weight of sugar refined in this country and then exported. Who could tell how much had been duty-paid and how much not, and how could the drawback be assessed?

As a matter of argument, countervailing duties may be desirable or not, but there seems no reason why their imposition or non-imposition need form any part of negotiations among the powers for the abolition of export bounties. If the various countries are in earnest, an understanding can be reached without any discussion on this branch of the subject. States at war sooner or later enter into treaties of peace; but those documents do not provide that in case of a breach of their agreements war will be resumed. The fact indeed does not require to be stated that if an agreement be broken the other parties resume their freedom of action. Similarly, if France, Austria and Germany solemnly agree with other powers that commercial war, in the shape of sugar bounties, shall cease, there is no necessity to further agree what shall be done in case any of them break a solemn treaty. In fact, the supposition is in itself an insult, and one that any great power might very properly resent, and if all are agreed that bounties shall cease, there is no necessity to consider what should be done if they were revived. It would obviously be open in such a case either for the aggrieved parties to call a fresh conference, or to take such defensive action as they might themselves think fit.—*Produce Markets Review.*

JANUARY 8.

WEEKLY MARKET REPORT.

1898.

SUGAR.	January 1.	January 3.	January 4.	January 5.	January 6.	January 7.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
Open Kettle.								
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Strict Prime	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	
Prime	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	
Fully Fair	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	
Good Fair	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	
Fair	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	Quiet.
Good Common	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	
Common	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	
Inferior	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	2 3/4 @ 2 1/2	
Centrifugal.								
Plant'n Granulated	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice White	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	
Off White	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	Steady.
Grey White	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	
Choice Yellow	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	
Prime Yellow	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	
Good Yellow	3 3/4 @ 4 1/4	3 3/4 @ 4 1/4	3 3/4 @ 4 1/4	3 3/4 @ 4 1/4	3 3/4 @ 4 1/4	3 3/4 @ 4 1/4	3 3/4 @ 4 1/4	
Seconds	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	
MOLASSES.								
Open Kettle.								
Fancy	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	
Choice	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	
Strict Prime	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	
Good Prime	19 @ 20	19 @ 20	19 @ 20	19 @ 20	19 @ 20	19 @ 20	19 @ 20	
Prime	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	Strong.
Good Fair	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	
Fair	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	
Good Common	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	
Common	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	
Inferior	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	
Centrifugal.								
Fancy	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	
Strict Prime	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	
Good Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	
Prime	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	
Good Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	Strong.
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
SYRUP.	18 @ 22	18 @ 22	18 @ 22	18 @ 22	18 @ 22	18 @ 22	14 @ 17	Strong.

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.10 @ —	Quiet.
Standard A	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	3.98 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
London:								
Java, No. 15 D. S.	11s. 4 1/2 d.	11s. 4 1/2 d.	11s. 4 1/2 d.	11s. 4 1/2 d.	11s. 4 1/2 d.	11s. 4 1/2 d.	11s. 8 d.	Steady.
A. & G. Beet	9s. 6 1/2 d.	9s. 6 d.	9s. 6 d.	9s. 6 1/2 d.	9s. 4 1/2 d.	9s. 4 1/2 d.	9s. 8 d.	Quiet.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.58	
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.58	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.09	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Strong.
Rosetta Ex. C	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 3.97	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Dec. 27	Tons	284,533
At four ports of Great Britain to	Dec. 24	"	84,000
At Havana and Matanzas to	Dec. 29	"	6,750

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JAN. 7, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	1,843	85,651
Sold	1,843	78,584

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO JAN. 7, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	18,011	1,036,731
Sold	18,011	855,708
Received same time last year	18,581	979,988

JANUARY 8.

WEEKLY MARKET REPORT.

1898

RICE.	Jan. 1.	Jan. 3.	Jan. 4.	Jan. 5.	Jan. 6.	Jan. 7.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....		— @ —	2 00@4 00	2 00@4 00	2 00@4 00	2 00@4 00	2 00@4 00	Strong.
CLEAN, Fancy.....		5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	
Choice.....		5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	
Prime.....		4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @5	
Good.....		4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	Active.
Fair.....		4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	
Ordinary.....		3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	
Common.....		3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	— @ —	
Inferior.....		Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....		2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	
BRAN, $\frac{1}{2}$ ton.....		9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 00@10 00	
POLISH, $\frac{1}{2}$ ton.....		15 00@—	15 00@—	15 00@—	15 00@—	15 00@—	16 00@17 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JAN. 7, 1897.

	SACKS ROUGH.	BLS. CLEAN.
Received.....	12,915	—
Sold.....	14,719	2,917

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO JAN.
7, 1897, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	853,603	2,320
Last year.....	858,794	3,133

Sugar.

The sugar market was steady at the end of the week, and the demand was sufficient to absorb the receipts, which were lighter.

Molasses.

Open kettle molasses is very strong, as are also centrifugal goods.

Rice.

Rough rice is in good demand and the movement is considerable. Clean is active.

Hawaiian Annexation.

[CONTINUED FROM PAGE 19.]

affect to see some means of keeping up the Asiatic labor supply after we are part and parcel of the States and subject to their laws—that as to contract labor among others. Now, without the sugar plantations the islands would be commercially nowhere, and without a large percentage of contract labor on it has not hitherto been found practicable to work any plantation successfully, and if we are to depend for the success of our sugar industry on an evasion of the laws of the United States, we shall be paying much too high a price for the privilege of living under those laws.

“Ardent annexationists profess to believe that the cane fields can be cultivated by white labor. They know better, and so does every one who knows what cane cultivation is.

“We had a labor commissioner here from California in the interest of annexation some months ago. He said he came to find an opening for the surplus white labor of California, and professed to have found it, but I notice he has not sent us any laborers, nor convinced the labor organizations on the coast that this would be a happy hunting ground for their people.

“Mr. Berry is quite right in his conviction that the islands can be annexed without the shedding of a drop of blood, but when I read now and then of the lawlessness which Uncle Sam allows in his own back yard, so to speak,

I have my doubts as to his success in keeping the peace on the property he proposes to invest in, a week's sail from home. He is not in that kind of business, and, with all deference, I should advise him to keep out of it.

“Great efforts are being made here to further the cause, and from the remittances that go forward to Washington, there must be something in it for somebody, whether I am right about the results of annexation or not.

“I say nothing of the ethics of the question, but am decidedly of the opinion that, from an American point of view, the annexation of Hawaii would be both morally and politically wrong.”

Barbados.

Looking at the state of the weather from an agricultural point of view, we are able to record an agreeable period. Rain has fallen from the date of the departure of the last mail to the present, with only a day or two of clear sunshine. The arrows are now dropping from the old canes, which brings them a step nearer the bill, and it is thought that the continuous rains we have been getting in every quarter of the country serve to ripen them at a quicker rate. In some fields the young crop for the season of 1899 is springing up vigorously, and many are taking advantage of the saturated preparation lands to put in cane plants at this most propitious of all periods.—*Globe, December 9.*

Trade Notes.

Maas & Waldstein.—Elsewhere in this issue we publish the advertisement of Messrs. Maas & Waldstein, proprietors of the well-known “R. & R.” chemical works of New York. This establishment has been in existence since 1876, and does an immense business all over the country. They have in past years placed a great deal of their product among the sugar people, as they turn out large quantities of bleaching compounds, their “Sulphine” and “Boxyde” being in extensive use for bleaching molasses. Mr. Max Rosenheim, who has been with the firm a number of years, has been in the city for some days, stopping at the St. Charles Hotel, and they are arranging to do a larger business in

this section than ever before. See their advertisement for particulars.

Machinery for Sale.—Elsewhere in this issue we publish an announcement made by Mr. M. R. Spelman, general manager of the Gramercy Company, that he offers for sale the entire contents of the sugar houses on the David and Hester plantations. The Gramercy Company recently acquired these plantations to add to its cane supply, and as the crop will all be ground at the Gramercy mill the machinery is of no longer use and they desire to dispose of it. Parties who want some good, up-to-date apparatus at a reasonable price can not do better than to address Mr. Spelman at the I. C. R. R. depot building, New Orleans.

Personal.

Mr. M. M. Neames, the skillful sugar house and consulting engineer from St. James parish, was a guest of the Cosmopolitan last Thursday.

Mr. Ernest H. Barton, a prominent planter of Ascension parish, registered at the St. Charles Hotel during the past week.

Col. Richard McCall, of McManor plantation, was in the city on a visit a few days ago and registered at the Cosmopolitan Hotel.

Mr. L. B. Hart, of the Hart Well Company, with headquarters at Plaquemine, was a guest of one of our leading hotels during the past week.

Mr. R. F. O'Brien, a valued attache of the great Belle Alliance factory, of Messrs. E. & J. Kock, was in the city last Thursday. Mr. O'Brien registered at the Hotel Grunewald.

Mr. John T. Moore, Jr., of Shriever, La., was in the city on Tuesday. Mr. Moore operates one of the best sugar houses on the Southern Pacific and had a fine crop this year.

Mr. E. B. Cunningham, of Sugar Land, Texas, was at the St. Charles Hotel on Tuesday.

Mr. H. Munson, of Assumption parish, was in the city on a visit a few days ago and registered at the Hotel Grunewald.

Mr. John B. Foley, of Napoleonville, was registered at the Commercial Hotel a few days ago, having come up to town on one of his customary visits.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98.

WANTED—ENGINEERS WHO UNDERSTAND sugar, coffee and rice machinery, also sugar making, to travel and sell machinery in foreign countries; knowledge of Spanish language necessary. Address, giving references and state experience, MANUFACTURER X, care this paper. 1-3-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT MAN- ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address E. O. W., Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN- Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address A. B., 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; all references furnished. Address C. LAURENT, Whitecastle, La. 12-28-97

WANTED—ENERGETIC AND STRICTLY SO- ber young man wants position as manager of small store on plantation, on salary or commission; gilt-edge reference as to ability and character. Address B. B., 1025 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address W. T., care Daily Journal, Plaquemine, La. 12-23-97.

WANTED—POSITION AS CLERK IN A COUN- try or plantation store; not afraid of work. Address CLERK, Postoffice Box 69, New Orleans, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt-edge references. Address B. B., 1025 Bayou Road, New Orleans. 12-17-97

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address COMPETENT, Box 649, New Orleans. 12-21-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address R. V. H., 129 Decatur street, New Orleans. 12-16-97

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898 at living salary. Address BOB, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and Rapides parishes and some New Orleans merchants. Address SMITH, care this office. 12-16-97

WANTED—A FIRST-CLASS PAINTER, AC- customed to country and plantation work, would like to obtain work either by the day or contract. Address BRUNO, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address E. C. MARSHALL, Cheneyville, La. 12-7-97.

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address HUSTLER, 1100 Dante street, New Orleans, La. 12-8-97

WANTED—By a young lady of several years' ex- perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address XY Z, care PLANTER. 12-3-97

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address J. E. W. DAVIS, McCall, La. 12-4-97

WANTED—POSITION AS BOOK-KEEPER, manager of store or large farm, or any other position of trust on plantation, where strict honesty and reliability are appreciated. I am 50 years of age, married, of good education, and ready to enter position on or after January 1, 1898. Address CHAS. S. FRITSCH, Port Allen, La. 12-4-97

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address B, care of *The Chief*, Donaldsonville, La. 12-3-97

WANTED—A YOUNG LADY WISHES A POSI- tion as governess in a Catholic family; good references and moderate terms. Address MISS K, care this office. 11-12-97.

WANTED—SITUATION ON SUGAR PLANTA- tion or saw-mill, as boarding-house keeper; long experience; can furnish best of references. Address COMPETENT, care LOUISIANA PLANTER, New Orleans, La. 11-17-97.

WANTED—POSITION AS VACUUM PAN sugar maker; has had long experience, and can furnish evidence of competency. Address H. S. LEWIS, 602 Gravier street, City. 11-10-97.

WANTED—A MAN WITH PERFECT AC- quaintance with the Spanish language, both in speaking and writing, and some knowledge in book-keeping, to take responsible office position on sugar estate in Mexico; must have unexceptional references and be willing to begin on a small salary; a good opportunity and first-class position to satisfactory person. Address, with age, nationality, and other details, B. F. JOHNSTON, 825 Warren avenue, Chicago, Ill. 11-10-97

WANTED—AN ASSISTANT ENGINEER ON sugar estate in Mexico; sober, industrious man of experience, with references, preferably with some knowledge of Spanish; a life position to the right man; salary small. Answer, stating age, nationality, married or single, salary desired per year, etc., to B. F. JOHNSTON, 825 Warren avenue, Chicago, Ill. 11-10-97

WANTED—A COMPETENT AND EXPERI- enced machinist and sugar plantation engineer wishes to engage by the year with good people at a small salary; references good; habits strictly sober; time to begin January 1, 1898, or to suit agreement. Address P. H. E., Engineer, 734 Dublin street, Carrollton, La. 11-7-97

WANTED—BY PARTY OF SEVERAL YEARS' experience in sugar manufacture and refining, a position in Louisiana or Mexico; have superintended work in both refineries and factories; can give testimonials from all former employers. Address H. S. R., Box 1286, New Orleans, La. 11-9-97

WANTED—TWO COMPETENT DOUBLE effect men. Apply 218 Canal street, city. 10-20-97

WANTED—POSITION AS STENOGRAPHER and typewriter, by a competent young lady; excellent references. Address STENOGRAPHER, care M. R. Powers, 704 Common street, New Orleans. 11-6-97

WANTED—BEET SUGAR ENGINEER, HAVING had large practice in designing beet sugar houses, and with experience in erecting and running, would like to connect with some new company or manufacturer of sugar machinery; best of references and satisfaction assured. Address SUITABLE, care LOUISIANA PLANTER. 11-2-97

WANTED—A POSITION AS CARPENTER AND millwright; understand putting up shafting and setting up machinery; twenty years' experience. Address GEORGE HINMAN, Franklin and Josephine streets, New Orleans, La. 11-1-97

WANTED—A POSITION AS A SUGAR MAKER; willing to do his own polarization; has had eighteen years' experience; can furnish reference. Address ALFRED ROUSSEAU, this office. 11-4-97

WANTED—A POSITION AS SUGAR DRIER; has had eighteen years' experience; can furnish good reference. Address M. MONTEGUDO, 437 Enghien street, city. 30-10-97.

ESTABLISHED

1876.



MAAS & WALDSTEIN,
107 Murray St. - - NEW YORK.
CHEMICAL EXPERTS

And Manufacturers of

SULPHINE AND BOXYDE,
Celebrated for Bleaching Molasses.

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Our Mr. Max Rosenheim, well known to the trade, will give personal attention to all inquires, and impart valuable information. Correspondence solicited.

FOR SALE!

ON EASY TERMS.

Two 4-ft. 5-Roller Mills, with engine and gearing complete.
One 4½-foot 3-Roller Mill, engine and gearing complete.
One Standard Double-Effect, with all pumps and connections complete. Capacity, 100,000 gallons.
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One 7½-ft. Vacuum Pan, with centrifugals, pumps, granulator, mixers and engines.
One 9-ft. Vacuum Pan, pumps, centrifugals, mixer, engine and sugar packer.
Two bagasse blowers and engines.
Three hundred sugar wagons.
Two filter presses and pumps.
Six clarifiers, capacity, 1000 gallons each.
A lot of pumps, boilers, feeders, pipes and fittings.

For particulars and terms address or call on

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To Lease Sugar Plantation with Modern Sugar House. Address,
JESSE W. ROSS,
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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

NEW ORLEANS, LA., JANUARY 15, 1898.

No. 3.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

OFFICIAL ORGAN OF THE

*Louisiana Sugar Planters' Association,
Ascension Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.*

Published at New Orleans, La., every Saturday Morning
BY THE

LOUISIANA PLANTER AND SUGAR
MANUFACTURER CO.

Devoted to Louisiana Agriculture in general, and to
the Sugar Industry in particular, and in all its
branches, Agricultural, Mechanical, Chem-
ical, Political and Commercial.

EDITORIAL CORPS:

W. C. STUBBS, Ph. D. W. J. THOMPSON.
W. W. FUGH. JOHN DYMOND.

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6 inch.....	28 00	70 00	105 00	140 00
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8 inch.....	36 00	90 00	135 00	180 00
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LOUISIANA PLANTER, 339 Carondelet Street, New
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EXECUTIVE COMMITTEE:

Henry McCall,
W. B. Schmidt,
Louis Bush,
John Dymond, President.
Lucien Soniat,
D. R. Calder,

The Louisiana Sugar Planters' Association.

The January meeting of this association was held last Thursday evening, at its rooms on Carondelet street, and was an exceedingly successful and well attended one. President Rost was in the chair, with Secretary Dykers at his post, and among those present were Messrs. Morgan, Eastwick, Deming, Bouchereau, Soniat, McDonald, Webster, Mallon, Murphy, W. J. Thompson, Zenor, Schmidt, Churchill, R. McCall, Bodley, Kemper, Mahon, Baldwin, Slangerup and a large delegation from the Experiment Station at Audubon Park. On motion, the reading of the minutes of the previous meeting was dispensed with. Judge Rost read a communication from Professor Stubbs expressing his regret at his inability to be present, and suggesting the appointment of delegates from the association to attend the annual meeting of the Louisiana State Agricultural Society to be held at Crowley, January 25, 26 and 27. The president will appoint ten delegates. The chair then called attention to the fact that, since the last meeting held by the association, one of its most valued members, Mr. L. C. Keever, had been called away by death, and, on motion duly made, he appointed a committee of three, consisting of Messrs. L. M. Soniat, G. G. Zenor and A. Bouchereau, to draw up resolutions expressive of the sorrow of the association over this sad event. The committee retired and reported the following resolutions, which were adopted:

WHEREAS, an all-wise Providence has seen fit to remove from us since the last meeting of this association Mr. L. C. Keever, a valuable and highly esteemed member of the organization and of its executive committee, whose wise counsel we can ill spare, whose loss we can not hope to adequately replace; and

WHEREAS, we desire to give expression to the sorrow we deeply feel over this abrupt parting from one who was bound to us by ties of fraternity, friendship and respect, who shared with us our prosperity and put his shoulder to the wheel with us in the periods of our distress; therefore, be it

Resolved, That this association voices thus its grief over his removal from us, and extends

to those who were even dearer to him than we its heartfelt sympathy in their affliction; be it further

Resolved, That a copy of these resolutions be sent to the members of his family.

The names of thirteen gentlemen who were candidates for membership in the association were then placed before the meeting, and all were elected unanimously. They were Messrs. L. Forsyth, Jr., P. S. Morris, Walter A. O'Neill, F. W. Freret, John Vegas, A. V. Robertson, J. Frank Webb, A. M. Underwood, Adam Short, M. Bell, E. P. Eastwick, Jr., C. F. Bodley, and J. P. Kemper.

The regular topic of the evening, "Crystallization in Motion," was then taken up and a paper was read by Mr. E. P. Eastwick, Jr., which appears in full elsewhere. Mr. Eastwick's paper was listened to with great interest, and the thanks of the association were extended to him. The secretary then read a paper on the same subject, which had been prepared by Mr. Joseph E. Kohn, consulting engineer of the Kilby Manufacturing Company, of Cleveland, Ohio, which was also received with thanks, and is printed in this issue.

Quite an extensive discussion of the subject matter of the papers then took place, which was participated in by Messrs. H. G. Morgan, Jr., G. G. Zenor, Judge Rost, W. J. Thompson, E. P. Eastwick, Jr., C. R. Churchill, R. McCall, John Paul Baldwin, Stephen Eiger and others. A full stenographic report will appear next week in THE PLANTER. After the views of those present had been thoroughly ventilated, the chair announced that the next matter before the association was the selection of a topic for discussion at the next meeting. Mr. Wibray J. Thompson moved that "The Handling of Cane at the Carrier" be discussed, which was unanimously adopted. The meeting then adjourned.

Col. L. S. Clarke, of St. Mary parish, was in the city on a visit a few days ago.

Louisiana State Agricultural Society.

There will doubtless be a large attendance at the annual meeting of the Louisiana State Agricultural Society, which will be held at Crowley, on January 26, 27 and 28, and as nearly all the railways have granted reduced rates on the basis of a fare and a third for the round trip on the certificate plan, it will be necessary for every one desiring to avail of these rates to secure a certificate from the point of departure, indicating that full fare has been paid going, which certificates when countersigned will enable the passenger to secure the return tickets at one-third fare. The Missouri Pacific Railroad system has advised us that it will grant reduced rates on this basis, on the certificate plan, from all points on its line in Louisiana to Alexandria, and that passengers from there can rebuy tickets to Crowley at the same reduced rates, which will be in effect from that point. If delegates fail to secure certificates they will fail to secure the reduced rates. The Queen & Crescent system of railroad has agreed to make the same concession.

Sugar Beets in Ohio.

The Ohio Agricultural Experiment Station, at Wooster, has issued a bulletin under date of January 10, taking up its most recent work in the analyses of sugar beets raised in Ohio. It is noticed that the best average beets were produced in the northern section of the State, the middle part coming next and the southern part the poorest. The beets raised in the northern section averaged 14.3 per cent. sucrose in the juice, with a purity of 79.4 per cent.; in the middle section, sucrose 13.9 per cent., purity 78 per cent.; the southern portion, sucrose 12.8 per cent., purity 75.3 per cent. The average for the whole State was 14 per cent. sucrose in the juice, with a purity of 78.8 per cent.

While these figures are not as high as have been reported by many of the agricultural experimental stations in the States further West, and especially in South Dakota, as reported in this issue, the actual sucrose content is sufficiently high to lead to the construction of sugar factories at various points where beets can be secured. There are proposals now making to erect factories at Sandusky and Toledo, and contracts are

offered to the farmers to grow beets for the season of 1898.

The Manufacturer.

The Manufacturer, published in Philadelphia for many years, in the interests of the manufacturers of the United States, has just reached us in a new shape, and we learn that the first weekly issue of this journal in each month will hereafter be devoted to the development and expansion of foreign trade. *The Manufacturer* has always been a most excellent journal, devoting itself most assiduously to all of our manufacturing interests, including that of sugar. The movement that it is now making to secure foreign trade by the publication of one number of each month specially devoted to that interest, and that number got up in beautiful style, is evidence of the high esteem among manufacturers that this important commercial journal has earned for itself. This monthly edition is published in English, as that is now recognized as the commercial language of the world, and we wish the journal every success in its new venture.

Sugar Beets in Pennsylvania.

Prof. H. B. Armsby, director of the State College, Pennsylvania, reports analyses of sugar beets grown in various parts of the State from seed distributed by the station last spring. He regards the results as very encouraging, although the dry weather of the late summer and fall rendered the yield small. He says that half the samples were of sufficiently good quality for sugar manufacture, and that a considerable portion of these showed yields of upward of 8 tons per acre, while several very excellent results were reported.

Another Beet Sugar Factory in New York State.

We learn from the *Batavia News* that efforts are making in Genesee county for the erection of a beet sugar factory there. As there is now a State law in New York that a bounty shall be paid to any organization, person or firm, that shall pay the grower a net sum of not less than \$5 for beets delivered at the factory, it is to be presumed that any factory would be constructed with the end of securing this bounty in addition

to the ordinary profits that might be derived from the industry. It is desired to establish in the village of Batavia a factory which will have a capacity to handle the beets from 3000 acres of land and to do this during a period of seventy days, which is estimated to be the maximum time that should be consumed. Such a factory would have to be able to consume about 800 tons of beets every twenty-four hours and its estimated cost of building and equipping is \$590,000.

It is said that, if the proper beet contracts can be made, capital for the erection of the factory will be forthcoming at once. Professor Roberts, of Cornell University, is said to have stated that sugar beets raised in Genesee county contained an average of 17.43 per cent. of sugar, with 84.32 per cent. purity. It is thought that the necessary number of contracts will soon be obtained to justify the organization of a company and the erection of the factory. Farmers' meetings have been called and they seem to be generally interested in the scheme. It is to be hoped that the venture will meet with success.

Saccharine.

Editor Louisiana Planter: Will you kindly inform me where I can find information concerning the manufacture of saccharine, the new substitute for sugar? I wish to know specially what the possibilities are that the sugar industry, cane and beet, may be injured by the continued manufacture of saccharine.

December 29, 1897.

G. H. B.

Saccharine is a coal oil product, and was discovered by Fahlberg while engaged in chemical researches under the direction of Professor Remsen, at the Johns Hopkins University, Baltimore. Professor Remsen directed the line of investigation and to him should attach the credit for the discovery of saccharine, if any credit there be in its discovery.

Saccharine, being a mineral product, is said to have injurious effects when used as food. Efforts have been made in Belgium to prohibit its importation there, but large quantities are said to be carried in in evasion of the law. We understand that it is produced to a considerable extent in Germany, under Fahlberg's formula, whence it is exported wherever desired.

There can be no doubt but that even now it seriously interferes with the sale of sugar, because it is used in many

cases to promote sweetening, its high sweetening powers, 230 times that of sugar, rendering it a desirable sweetening agent where its presence can be concealed. Its present use, therefore, seems to be fraudulent, or as an adulterant, just as glucose was, and in fact now is.

Saccharine probably enters more largely into manufactures than is generally suspected, and this may account for the limited effort thus far made toward the suppression of its sale. Our people are not very likely to consume coal oil sugar if they know it, and what we need is a rigorous system of pure food laws that shall suppress this and all similar adulteration. The final effect of saccharine upon our American cane and beet sugar industries can hardly be very serious, provided the proper efforts are made to suppress its fraudulent use.

The Clarification of Cane Juice.

A recent issue of the *Port of Spain Gazette*, of the Island of Trinidad, B. W. I., contains an article under the above caption which is of interest to the sugar world generally and to us in Louisiana in particular. The author of the article, Mr. Louis Bert de LaMarre, is the agent for the Burnley estates in the Island of Trinidad, where the Lillie multiple effects and the pending clarification apparatus have been recently adopted and used with pronounced success during the season. Mr. de LaMarre discusses cane juice clarification as follows:

The process of clarification by the Deming apparatus is as follows:

The cane juice expressed by the mill is passed on to tanks without the admixture of any clarifying agent. In the tanks a certain amount of lime is added for clarifying and mixed with the juice by means of atmospheric air being blown into the tanks from the bottom.

From these tanks the juice is conducted to the superheater (digestor and absorber), passing through which it is drawn off into conical tanks of the usual external pattern, but being fitted internally in such a way that there is a prompt settling of the juice. Each of the tanks in the series is fitted with a bottom "robinet" ready for connection, and the juice passes through the entire range by means of piping fixed in the top of each, getting gradually clearer by the simple process of gravitation. It then passes on to the sub-siders, previous to being boiled in the triple effect.

Along with this I give an explanation of the Deming process of clarification, and I consider it to be mechanically correct. It is in the chemical treatment of the juice that any fault in connection with it lies, and had the manufacturer only kept this in view, as well as the

mechanism, the apparatus as a whole would have been very nearly perfect. Therefore, as the result of several conversations with Mr. Carmody, professor of chemistry to the government of Trinidad, and with Mr. Peter Abel, of the Usine St. Madeleine, I am endeavoring to correct the faults I find in the apparatus so far as the chemical points are concerned, and Messrs. James Smith and Gambal, the engineers of Messrs. Burnley's Estates, in this island, are rendering me able assistance in bringing my proposed treatment to a practical result.

Supposing a certain quantity of lime with hydrate of alumina, in the proportion of 1 to 300, be required to clarify the juice, the *modus operandi* I am establishing at Esperanza factory is as follows:

Half the above mixture will be mixed in a regulated manner, with the cane juice at the bottom of the mill, and the balance when it reaches the cylindrical tanks. Then in order to get a thorough mixture and to secure the complete coagulation of the albuminoids, etc., sulphur-dioxide fumes are pumped and forced into the tanks. Then the juice so treated will be forwarded neutral into the superheater (digestor and absorber) and at the outlet discharged into pipes on top of this machine, going to the conical settling tanks, a regulated jet of phosphoric acid will be introduced, mixing thoroughly with the juice, which is then carried forward by its own velocity into the conical tanks.

The chemical effect of phosphoric acid introduced at this stage of the process will be to get rid by precipitation of the excess of lime in the juice, and on account of the heavy specific gravity of this precipitate, it will give a quicker precipitation within the conical tanks.

With regard to the entire plant supplied by Mr. Deming and the Sugar Apparatus Manufacturing Company, of Philadelphia, I have to state that some portions, such as the conical and cylindrical tanks are not a new invention, but the superheater (digestor and absorber) is an entirely new idea, and I can recommend it to every one engaged in the manufacture of sugar. The combined process of tanks and superheater as supplied by Mr. Deming, would be a complete success, if he had not overlooked the chemical composition of the juice to be dealt with in tropical countries where the atmospheric and other conditions are not the same as those existing in Louisiana. I have endeavored to indicate the chemical process which the juice should undergo, and if this be supplied by Mr. Deming to his excellent mechanical arrangement, I can recommend its use upon the lines described.

I must also say that with the "Lillie" evaporator, from the Sugar Apparatus Manufacturing Company, which was erected at Esperanza Estate, in January, 1897, the entire crop of nearly 4000 tons of sugar was taken off in seventy-five working days, and no criticism can be brought against it; the apparatus at the end of the season was nearly as clean inside as when it was erected.—*L. Bert De LaMarre, M. Societe Clinique de Paris, in Port of Spain Gazette.*

Rice in 1897.

The demand throughout 1897, and especially its last quarter, showed marked enlargement, due to generally improved conditions, with consequent increased purchasing power among consumers. Then, again, because of the relative cheapness of rice in comparison with potatoes and other cereals. Foreign, as heretofore, has been the main dependence, furnishing quite two-thirds of the required amount.

The year opened with stocks in all parts of the world far below normal (scarcely 60 per cent. of the average previous five years at

equal date) and the probability of a shortened forward supply because of the famine in Bengal. The requirements on latter account were nearly 500,000 tons, but, fortunately, were nearly offset by an unusually large crop in Burmah. The diversion of the extraordinary amount named (say ten times an average American crop) from regular commercial channels failed to affect the markets abroad, other than to keep them in good form. The movement was characterized by steadiness, save in the months of April and July—in the former a sudden alarm over the tariff, and in the latter its enactment stimulated the demand, followed by a falling away of equal amount in the months next ensuing. The interjection of a new tariff at a time when the domestic sorts were in light supply impelled an advance of half a cent, corresponding to the enhanced duty, which has since been maintained. The market closed strong at the end of 1897, with the general opinion prevailing that the new year would open under conditions favorable to advancing values in both domestic and foreign.

Latest advices respecting the home product show average quality along the Atlantic coast, but in the Southwest (Louisiana and Texas) marked diminution from early estimates and the domestic supply perforce short of annual requirements. Reports, therefore, concerning the situation in Europe, as well as progress and welfare of the product in the far East, are of continuing interest. Stocks in all distributive centres abroad continue less than average, which accounts for the generally firm and unyielding conditions of markets, spite variations of demand. As to the forward supply, contrary conditions have greatly curtailed the outcome in Japan, and its deficiency will have to be supplied by importations from Burmah. The next following in order of marketing—Bengal, is prospering but scarce average. Burmah, the chief source of the world's supply, promises another bumper crop quite up to the last one. Other sections report average experiences and no surplus. The situation epitomized stands thus: Domestic crop less than requirements; stocks throughout the world light; maturing and growing (foreign) crops in aggregate less than usual, and outlook favorable for full values throughout the current year.—*American Grocer.*

Lakeside Irrigation Company.

The Lakeside Irrigation Company has been incorporated by Dr. E. I. Hall, E. F. Rowson, John Boyum and F. B. Carpenter, with \$30,000 paid capital, each partner being an equal owner. They have purchased the Dr. Hall farm of 4300 acres, and will at once put in an irrigating plant. Lumber has been purchased and work will be pushed upon buildings and other improvements at once. This will be one of the strongest irrigation companies in the State and they have one of the finest locations on earth for such a plant.—*Jennings Times.*

Col. John R. Gheens and Miss M. A. Gheens, from Golden Rancho plantation, in Lafourche, were guests of the Royal during the past week.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: Belle Helene is the sole Ascension factory still in the throes of cane grinding, and her fires will probably have been extinguished by the time this screed appears in print. No details of the work at Belle Helene are as yet available, but it is known that in spite of the numerous drawbacks encountered there early in the rolling campaign, the aggregate outcome will be quite satisfactory to those interested in the place.

Hermitage finished her labors on Wednesday of last week, having handled a total of 18,003 tons of cane, which yielded 3,100,000 pounds of sugar, a fine average of more than 171 pounds per ton. Manager James Landry, Engineer Chas. H. Cody and Sugar Boller Lucien Chauvin all merit a share of the praise due for the tip-top results secured at the fine Hermitage factory.

Palo Alto also wound up the same day Hermitage did, and Manager H. C. Wilson and his associates have every reason to feel satisfied with the showing they made. The grinding season at this place began October 18 and closed January 6, but the actual running time of the mill was sixty days. During this time 29,028 tons of cane were crushed, from which 4,757,843 pounds of sugar were obtained, the averages being 480 tons of cane handled per day, 164 pounds of sugar obtained per ton of cane, and 3485 pounds per acre. During his nearly thirty years of incumbency of the manager's post at Palo Alto Mr. Wilson has probably had no more successful season than that of 1897-98, considering the quantity of material available. It goes without saying that he is to remain on the place another season, with a prospect of still being there for many more years.

The output of Messrs. Bernard Lemann & Bros.' three factories has been larger than was recently estimated in this correspondence. Instead of 9,900,000 pounds, the total will reach 10,240,000 pounds, of which Palo Alto has furnished 4,757,000, Belle Terre 3,050,000, and Peytavin 2,433,000 pounds.

The sugar produced by the Miles Company's factories is also somewhat larger than earlier estimates, being reported at about 18,750,000 pounds. Hon. Wm. Porcher Miles confirms the general impression that the pecuniary results realized from this crop will be more satisfactory than those from the larger product of the preceding season.

It has been about definitely settled that the sugar product per ton of cane obtained at the big New Hope factory was 189.29 pounds, which is much larger than that of any other house in this parish.

While a number of changes in the ownership of sugar plantations are reported from neighboring parishes, and particularly St. James and Iberville, so far as is known to date there will be no transfer of Ascension properties from their present owners to new hands. A few managerial changes have taken place which will be noted in next week's letter.

The Ascension Branch, Sugar Planter's As-

sociation, failed to hold its January meeting last week, owing to lack of a quorum, and one of the main causes of this lapsus was the absence of the president, Hon. Henry McCall, who was called to New Orleans early in the week on business and hence could not "show up" at the club rooms.

The weather for some days past has been extremely mild and spring-like, giving a great impetus to early ploughing and planting, which are in full blast in ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been remarkably warm since last report, and dry until Wednesday. Everybody took advantage of the situation and cane planting was general throughout the parish. The soil was in splendid condition, and the seed cane is reported to be good, only inclined to sprout, and unless it can be planted in a short while much of it will be lost, or so badly sprouted that the stand will be indifferent. Labor is plentiful, and everybody is working with energy. Several showers on Wednesday will suspend field work for a few days.

We have visited both the upper and lower sections of the parish lately, and find that in the former, where everything is cotton, things look rather blue. The crop was not up to the average in size, and, owing to rivalry and competition among the merchants, advances were made predicated on an estimated value of \$30 per bale for cotton, which is hardly averaging \$20. Some of the cotton still remains in the field. On the other hand, in the lower section all is smiling. Sugar lands are up in value, and many who bought lands on credit a year or two ago are anticipating their notes, while others are buying woodlands, five and six miles from the river, at from \$15 to \$30 per acre.

About one-half of the sugar crop is still on the plantations in the first ward, awaiting the advance of another quarter, the realization of which seems more than probable in the early spring.

One of the planters in this neighborhood divided a lot of molasses into two parts recently, one of which was shipped to New Orleans and sold on the market there at fifteen cents per gallon, while the other was shipped through New Orleans to New York and sold there, and notwithstanding the additional freight and other incidental charges, aggregating \$1.80 per barrel, the molasses sold in New York netted the planter \$2.60 per barrel more than that sold in New Orleans.

Messrs. Roth & McWilliams, of Plaquemine, closed the sale of their Myrtle Grove plantation on Bayou Jacob, Saturday, to Mr. Ernest Vicknair, of St. James parish. The price paid was \$40,000, which, with several assumptions made the price about \$44,000. We learn that Mr. Vicknair has made arrangements to put in a vacuum pan, and that he will purchase all cane offering for sale in his neighborhood.

Mr. Edwin Marionneau, of Plaquemine, a stirring and energetic planter, has bought out his coproprietors in the Belfort plantation, and will run the place for his own account, and

that it will be done successfully is a fact recognized by all acquainted with Mr. Marionneau.

Mr. Christopher Devall has rented his Mes-pilus plantation to Messrs. J. A. Langlois and A. J. Billings.

Mr. A. J. Martinez has sold his farm to Mr. P. A. Dupuy, of Plaquemine Point.

Mrs. Leila M. Harper and John Hill have sold their Key plantation on Bayou Marin-gouin to Mr. James H. Merrill, of West Baton Rouge parish.

Hon. Andrew Price and wife, of Lafourche, and Major Lawrence L. Butler, of St. Louis, Mo., are here to attend the annual meeting of the Edward J. Gay Planting and Manufacturing Company, Limited.

District Court met in regular jury session last Monday and Hon. W. W. Ventress, of Sun-shine, a prominent planter of the fourth ward and member of the Legislature, was appointed foreman of the grand jury. IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: Scarcely have the echoes of the puffing of the sugar mills died away ere work is being actively pushed forward on the crop of 1898. In the matter of field work our planters have been blessed with phenomenal weather for the first half of January. From Tuesday, the 4th inst., up to Wednesday, the 12th, the weather has been remarkably warm, the thermometer frequently registering 80 deg. during the day. Under the influence of these temperate conditions grass is beginning to peep out of the ground as though spring were at hand. It is many years since the planters have accomplished as much work so early in the year as has been done during the past two weeks. Ploughing is being pushed forward on all sides, while cane is being planted on not a few places. Indeed, Mr. E. Montecino, on the old Carey place, has almost finished planting. This warm spell has not been received kindly, as it will probably cause the cane to sprout more or less, when a severe freeze will come along and inflict the usual damage.

Cinclare, Smithfield and Orange Grove are still grinding away, but they are on the home stretch and, barring accidents, will finish in a few days. Looking back over the entire rolling campaign the fact stands out in bold relief that, viewed from any and every standpoint, the grinding season of 1897-98 was exceedingly favorable to the planters of this parish. Hence it is that they take up the work of the current year with more hope and cheerfulness than marked the opening of the cultivating season last January.

The winding up of the long rolling season at Poplar Grove was made the occasion of quite a demonstration last week. The field hands had a grand parade, their mules and carts decorated with small flags, while a brass band added to the noise of the occasion. Fire-works and a dance for the young folks Saturday night were incidents of the celebration, which was brought to a close by an elegant supper tendered by Mr. H. Wilkinson to the factory force and a few of his intimate friends. The health of the genial host and the contin-

ued prosperity of Poplar Grove were drunk in bumpers of sparkling Roederer.

It is reported that Mr. R. N. Hamilton has sold his one-third interest in Allendale plantation to Mr. Martin Kahoa.

Mr. Dannie Duplantier, who, during the past five years, has been assistant manager on Anchorage, has taken the management of Kelson for the current year.

Mr. J. J. Capponex, who had charge of the Lefebvre's Longwood plantation in East Baton Rouge last year, has been installed as head overseer on Poplar Grove.

Material improvements are contemplated at Westover this year.

Mr. George Hill, so rumor has it, will put in a vacuum pan at Barrowza for the next crop.

Cinclare is being overwhelmed with offers of cane to be delivered next fall.

At the present time there seems to be an abundance of labor in

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: At this season there is necessarily but little to record of interest from an agricultural standpoint. The crops of the former year are about harvested, those of the present year not yet planted. A few remarks as to the weather constitutes about all the stock in trade at present of your various scribes—a topic, at best, threadbare.

The week just closed was favorable for field work, and on one or two places, at least, the business of planting cane was started. I learn that one planter was not jubilant over the appearance of the seed cane, it having sprouted badly in the windrow. To-day the weather has been threatening, with occasional light showers; at present writing it promises to be colder. The warm weather has been rather trying to those having to work in the factories.

Your correspondent from Iberville hits the nail squarely on the head when he suggests that discriminating rates on railroads will not tend to increase the sugar trade of New Orleans; in fact, if there is an attempt made to coerce the planter into shipping to New Orleans all of the sugar that is not absolutely pledged to the New Orleans merchants will seek other markets.

One of the mistakes made by the New Orleans people was that of concealing the market price of sugar and not allowing the papers to quote the *official price of each grade*. As it is, the quotations sent out for the same day by different merchants do not agree. For business people to attempt to juggle with the prices, or attempt to conceal the market rate, is a sure method of business suicide. New Orleans should be to a much larger extent the market place for the sugar crop; that it is not is due to the active competition of other cities, the fact that they market more cheaply than New Orleans, and the additional fact that the seller resents the withdrawal of the official quotations.

On the other hand the action of the planter is to be deprecated who avoids altogether the New Orleans market. This means that traders who would buy both in New Orleans and on

the plantations are forced to buy to a large extent on the places, leaving the New Orleans market to one or two large purchasers.

This is a question that admits of considerable discussion on both sides. To do away with the Crescent City as a distributing point will eventually injure the planter, as will the allowing of the market there to be controlled by the refiners as against the traders who buy for direct consumption.

Aside from any question of pride in the old town, it pays the planter to see that New Orleans retains at least a large share of its sugar trade. It does seem, however, that its merchants are doing their utmost to lose it, and instead of reducing the cost of handling the sugar so as to compete with other cities, by withholding official quotations and seeking to get discriminating freight rates, they are alienating the good will of the people whose produce they expect to handle. Several years ago this matter was discussed in my letter, at the time action was taken to conceal the official quotations of each grade, and the prediction was then made that such course was a mistake, and it would only hurt the trade of New Orleans. That error can be corrected, the official quotations can be published daily and it would restore some of the lost confidence. But to that must be added a reduction in the handling of the sugar and then New Orleans will resume her lost rank as a distributing centre of the Louisiana sweets.

We understand from Mr. Malhiot that Oakley will probably increase her milling capacity so as to handle the crop made and the bought cane more rapidly. Mr. Malhiot with his present mill has obtained excellent results.

Mr. Ivy Kittredge proposes to put tenants on some land hitherto lying idle, that is, for a long number of years. There are many Assumption people buying up land in the neighborhood of White Castle and they will sell their cane by the ton. MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Light rains at night, heavy fogs in the early morning, and temperatures above the normal have all tended to cause a rapid decline in the sucrose content of the canes, and it is very fortunate that but a limited acreage remains to be harvested. With but one or two exceptions, the canes to be ground were windrowed prior to the severe freeze, and will continue to make good sugar probably until the end of the campaign; where they were standing at that time they will scarcely pay for grinding after the end of this week, as fermentation is very active under existing conditions. Where the campaign is from any cause to be prolonged into the new year, then prudence would seem to prompt that canes to be ground so late in the season should be windrowed prior to injury from a freeze. The output of the parish has been somewhat curtailed by climatic influences, yet to no very great extent. Recently very high figures have been published as to yield of sugar in the parish and the output in pounds per ton of cane.

Conservative estimates are below the pub-

lished figures, based on the backward spring, the injury from want of adequate moisture in spring and summer in some sections, and the unusual growth during the first three weeks in September, resulting in a low sucrose content in the canes at the commencement of the campaign. The yield will be beyond expectations, yet not phenomenal, as will be proved when the produce tax is paid.

All the factories below town on the Grand Caillou have closed operations with the exception of Honduras, of Messrs. Shaffer & Morrison, and Live Oak, of Engman. Greenwood, of Mr. Thomas Casey, is the only factory still grinding on the lower Bayou Black. Ardoyne, of the Messrs. Shaffer Bros., and Belle Grove, of Mr. James McBride, on the upper Bayou Black, may cease operations in a week or ten days, and Poverty Flat, of Messrs. McCollom & Cocke, on Chacahoula, at the close of the week.

Wednesday of last week, variable; Thursday, rain at night and during the day; Friday, heavy fog and warm; Saturday, light rain at night and cloudy during the day; Sunday, fog and cloudy; Monday, light rain at night; Tuesday, clouds and sunshine and warm.

Report from Schriever is as follows:

	Temperature.	Rainfall.	Sunshine
January	3.45.0	22.0	.....
"	4.65.0	24.0	.....
"	5.73.0	46.0	.....
"	6.78.0	51.0	.12
"	7.77.0	44.0	.05
"	8.78.0	45.0	.....
"	9.80.0	54.0	.....
	71.0	41.0	.17

TERREBONNE.

St. Mary.

The whistles of the various sugar houses throughout St. Mary have almost been hushed. Many have finished the season's work with fair results, still a few of them are pegging away. Unlike many other seasons, this year has been very favorable for taking off the crop. The mills were compelled to stop for only a few days on account of bad weather, and not one planter lost any cane. A still larger amount of seed was put up, which means that the acreage will be largely increased. In many places the swamps have surrendered their bosoms to the advancing hand of progress. Levees have been made, draining machines put up, the water pumped out, the timber cleared away and the former home of the alligator is now the richest sugar land under the sun. If this keeps on the marshes on the gulf will be transformed, and the parish of St. Mary will show to the world what money, industry and progress can do when the necessity is at hand.—*Franklin News.*

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: We have had regular spring weather for the past week, and a number of old settlers predict that we will have no more cold weather this season; however, we attach but little importance to weather predictions. If the present conditions continue for a couple of weeks it will

considerably aid the farmers in planting their cane, which is now the general order of the day. The gee-haw man can be heard on all sides these days, and his sole aim seems to be to plough all the land he can to plant all the cane he can. The cane crop will be immense this year if the season is favorable. The large amount of seed that was put up has preserved wonderfully well, hardly a stalk spoiled as far as reported and still there is not enough. Seed cane is in demand on all sides, but no one has any to spare; several thousand tons could be disposed of at fabulous prices were it to be had. The immense increase in the acreage of cane in this parish has seemingly attracted the attention of capitalists this way and the probabilities are that we will have, at an early date, a modern central sugar refinery in the neighborhood of Abbeville. A tract of land containing 500 acres, situated one mile south of Abbeville, was purchased a few days ago for the purpose, as we understand, of erecting a very large refinery and a company will be organized in a very few days with an authorized capital of \$500,000, to erect and operate the same. The promoters of this enterprise could not have selected a more fit location or one with a brighter future, for this parish is undeveloped in the sugar industry—in fact, it is still in its infancy, and with the proper facilities for saving the cane after it is made would stimulate a supply equal to 1000 tons a day to a mill every two miles distant along the Vermilion river. We want more mills, we need more mills and the increase in the cane industry will demand more mills.

Extensive preparations are being made in the rice district for an increase in acreage this year. All the rice farmers are trying to make some kind of arrangements to have their crops irrigated this year, and it will be a question of a very few years when "providence" rice will be a thing of the past. The entire country west of here is being cut up by irrigating companies building and extending canals. The Gueydan Canal Company and the Trickey Canal Company, both in the extreme western part of the parish, are now figuring, we are informed, to connect their large canals, which, if done, will make one huge canal some twenty miles long, with a large irrigating plant at each end. The Gueydan Company has already rented all the land along their canal proper, and could place as much more if they had it.

Cotton will get a black eye this year where it is possible to plant anything else. Some of our cotton planters claim that it is better to not plant any crop at all rather than 4-cent cotton, and then not to be able to have it picked. There is lots of cotton in the fields in this parish yet, and the owners can not get it gathered one-half for the other. Unfortunately there are a great number of our farmers that are forced to plant cotton or nothing just now, for they are too far from the river or railroad to raise cane, and have no facilities for irrigating to raise rice.

Mr. Furman Stout, of Indianapolis, Ind., but who has large rice interests in west Vermilion, was in Abbeville a few days ago. Mr. Stout informed THE PLANTER correspondent that he

would in all probability move with his family to this parish.

Mr. J. N. Foutz, a successful rice planter of Wright, La., was transacting business here this week.

P. C. M.

Avozelles.

[Special Correspondence.]

Editor Louisiana Planter: To-day finds the farmers and planters engaged in gathering the crops grown last season, while preparing the ground for the reception of seeds and plants this season.

Mr. C. Kennedy, of Barbreeck, informed me on the 8th instant that Mr. H. Shaw, manager of Barbreeck plantation, while meeting with a fair share of success in field work, and cutting and shipping cane to market, had yet on hand to ship some forty acres of cane which, with the best of weather, will require something like two weeks to move. Mr. Shaw has reserved seed for planting 250 acres to cane this spring, which, together with fully 250 acres of first year's stubble, will make for Barbreeck 500 acres to cane alone.

While THE PLANTER's scribe has not been so informed, yet it is the impression that a first-class sugar factory will be built at Barbreeck during this year in time to work off this season's cane crops.

Anchorage plantation, now under the able management of Mr. Campbell, has reserved seed cane for planting quite a large acreage to cane this spring. Anchorage is a pretty place. The soil is of a rich, sandy loam, light to work and very productive when planted to cane or corn.

Mr. Campbell, the manager, who is an all-around up-to-date planter, will employ his energies to produce the greatest tonnage of cane possible to the acre planted.

Mr. Lewis is at present manager on the Cumberland plantation, and will, I understand, increase his acres to cane and corn. The soil partakes somewhat of the same nature of that found on Anchorage plantation, and is very productive when planted to cane, corn and pease.

Mr. R. L. Foster, the superintendent for these three beautiful plantations, has encountered a decidedly irksome piece of work from the day he first took charge to the present moment.

Drainage, the life of the land in this country, was found to be in bad shape and neglected, buildings out of repair, fencing needed, the soil deficient in fertility, and there was a sad want of good farming implements, all of which has required much time and expense to supply; but by dint of hard work this season finds improved conditions. Thanks to the energy displayed by Mr. Foster, a brighter sun will shine to bless his efforts to bring once more progress and prosperity.

Mr. Wilkeson has the management of St. Peters plantation, and if I mistake not finished shipping cane on the 7th inst. I was unable to ascertain the amount in tons of cane made and disposed of from St. Peters plantation, but I am under the impression that the yield of cane per acre was fairly satisfactory. It is understood St. Peters has in reserve an abundance

of seed cane with which to plant an increased acreage to cane this spring.

Mr. C. F. Knoll, the enterprising proprietor of the Ellen plantation, was visiting in the Crescent City last week, bent on business of course. Mr. R. Woods, managing for Mr. Knoll, had his men, teams and plows out in force last week preparing the soil for cane planting.

Mr. L. T. Otey, who for the past three years has been employed as accountant on the Leinster plantation, has recently been engaged by Mr. Knoll in the capacity of book-keeper and manager at the Ellen store and plantation.

Information of a very satisfactory nature leads THE PLANTER's scribe to say that the results obtained from the manufacture of cane into sugar, with the season just ended at the Leinster sugar factory, were in every respect satisfactory.

In regard to the weather there is nothing left but to say it has been during the past week warm and damp, with an occasional light shower. Should this weather continue much longer it is feared that the fruit buds will be pushed too much forward, and should a cold snap come on fruit would suffer. ERIN.

St. James.

[Special Correspondence.]

Editor Louisiana Planter: The weather is still superb for grinding operations. Old Pluvius frequently makes a little skirmish in the twilight, but precipitately retreats on the appearance of the king of day, who is now master of the situation. Last Monday a mere drizzle fell most of the day, but it only served to lay the dust. It is true the tardiness of grinding on some places is partly due to unfavorable weather, but beneath such skies as beam down upon us to-day, reveling in sunshine that literally clothes the earth in radiant gladness, he would be an ingrate who could ignore this present beneficence to brood over past disappointments. A southwesterly breeze is blowing and the temperature is something like what we have in April. Still we feel this abnormal condition can not last long, as it is no doubt the precursor of rain followed by cold.

Pike's Peak, Bessie K. and Oak Alley plantations, are the only three yet "rolling," to our knowledge, in this section. The latter, however, only has a day's hauling in sight. St. Emma of Messrs. Hymel & Schexnaildre, wound up their campaign last Monday.

Richbend finished the third day of the new year.

Mrs. Vegas informed your correspondent that 1,935,000 pounds of sugar had been manufactured, and not one pound of this was classed under fancy.

Spring planting is progressing on most plantations where grinding is finished.

ST. JAMES.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: The generally fair condition of the weather was a prevailing feature of the past week; following the freezing spell which characterized the new year, we

enjoyed several days of spring-like weather which proved most beneficial to every one and everything, and the predominating impression was that spring was almost there. But any such ideas have been caused to vanish by the sort of weather which we have had for the last two days. Tuesday a dense fog hid the sun from us the entire day, whilst Wednesday was blessed by a heavy downpour which was altogether of a disagreeable nature, and to-day (Thursday) the lowered temperature is accompanied by an east wind, which is a sure sign of an approaching rain.

The fine sunny days of last week have permitted almost every planter to start his crop of 1898, which, if it proves according to anticipations, will break the record of the past years. Ploughing is going on extensively and the soil is reported as being in a very good condition. Planting also was being done with haste, but this last disturbance in the elements will cause an inevitable delay.

Speaking of grinding seems almost out of date, still there are some backward planters, and daily cane cars are seen running up and down our railroads. Gramercy has not yet concluded her rolling season, but will be done by the close of the month.

Messrs. L. E. and Charles Callery, of Convent, have rented the Elma plantation of Mr. Ferchaud (Lauderdale postoffice), where they expect to cultivate an extensive rice crop. The Messrs. Callery are expert planters, having been born and raised on a plantation in St. Mary parish. Since their removal to this parish they had abandoned the planting business, but with the improved prospects have decided to return to their former industry, and, with Mr. L. S. Bourgeois for overseer, expect to make a fine rice crop on their newly-rented place.

Mr. J. Guldry has accepted the position as manager of Mr. Levert's St. John plantation in St. Martinville.

Mr. Michel Cantrel, a promising young overseer, has removed with his family to Galven Grove, where he is to be assistant for the coming crop.

The strong and numerous talks concerning the different sales and purchases in our parish seem to have died out considerably, and every planter is quietly going on his way beginning his new crop.

Owing to continued illness in the family of Judge Guion, there will be no January term of court in St. James, as it has been adjourned *sine die*. Court will not be in session before March.

CONVENT.

Mr. C. D. Kemper and Mrs. Kemper, of Franklin, La., were guests of the St. Charles Hotel last Thursday.

Mr. Joseph Birg, a prominent and successful sugar planter of St. Mary parish, was in the city on a visit a few days ago.

Mr. George Matthews and Mr. E. F. Dickinson, both of the Georgia plantation, near Raceland, were in the city on Wednesday and put up at the Grunewald.

Mr. O. B. Danjean, a prominent planter of St. Charles parish, was a guest of the Hotel Royal during the past week.

FOREIGN LETTERS.

Berlin.

BERLIN, December 25, 1897.

Editor Louisiana Planter: The week under review has been for some time a little less unfavorable, a few days being dry and later on also colder, but the hopes for a thorough change for the better have been nevertheless frustrated, as the weather after a slight snow storm grew again mild and wet, so that the beets yet to be worked remain too exposed to the influence of the unseasonable weather experienced already for so long a time. To be sure the raw material of the factories is rapidly decreasing, but there are still about 150 establishments in activity, and these will certainly see their yield diminishing as they have done already from the beginning of November up to the present day. About the same is the situation in Austria, only the campaign will be there less protracted, and consequently the damage less sensible. In France, Belgium and Holland, the weather has been more or less variable, but as in those countries the campaign is practically finished, there is no need to dwell on the subject of the weather.

The general topic of discussion in sugar industrial and commercial circles is the bounties, and their eventual abolition. There have been preliminary conferences held in this city between German and Austro-Hungarian delegates, but it is not known what the result of these negotiations has been, and if they had any, it can at best consist in an agreement on the steps to be taken in the matter. If there takes place again a general conference, it would be the ninth which has been assembled on account of the sugar bounties, but I think it will turn out as abortive as its eight predecessors if France refuses to give up, at least to some extent, its indirect bounties. The abolition of the direct bounties on the part of France is only a sham concession, a bone, as it were, thrown to the hunting party. It must be wished, of course, that the object in question may be reached as speedily as possible; on the other hand, it can not be denied that the movement at present imparts a feverish feeling to the markets, and causes much uncertainty with regard to the future. Our dealers, for instance, observe a waiting attitude, for the reason that they don't want to have much sugar in stock, when, in consequence of the abolition of the bounties, a new sugar law should be issued.

In Russia the Minister of Finance has recently released the half of the so-called reserve stock of the factories, as the prices have reached that height which justifies, according to the legal provisions, such a measure. Another interesting item of news is reported from Russia—namely, the legal limitation of production, which, so far, has worked very well, and has given, at least to the producers, entire satisfaction, is prolonged for another term of three years, but with some change in the regulations concerning the subject. Heretofore the fabricants were allowed to carry over from one campaign to the other their surplus stock, which was only at a higher rate of tax ad-

mitted to be sold on the home market. The new regulations, however, provide that the surplus stock must be cleared up every year, or that it must be exported at any rate or sold at home burdened with double tax—that is, 3.50 rubel, instead of 1.75 rubel, per pood. The surplus stock of the last campaign, as may be noted by the way, amounted to about 80,000 tons. As the fabricants in Russia will beyond any doubt prefer to export, the markets of the world may be, especially when there is plethora of offerings, seriously affected by the observance of this new measure on the part of the Russian factories.

A German colonial company was incorporated on the 15th inst., with a capital stock of 550,000 marks, whose object it is to grow cane on the Pangani river in Eastern Africa. The company will get the sole privilege and right to manufacture sugar and rum in the territories in question; but they are obliged to invest at least 100,000 marks in the building of the factory, which in the year 1900 must be in running order to produce white sugar. The area the government has granted to the company amounts to 2000 hectares (upward of 4000 acres), at 2 marks per hectare.

A new sugar factory is being built in Sophia, the capital of Bulgaria. It will, as a matter of course, produce beet sugar, and, provided that the necessary quantity of beet roots are furnished in time, the concern will start with the commencement of the season 1898-99.

The lower chamber of Holland has adopted a bill to the effect of abolishing the export duty levied on the sugar of Java, which the island was to pay formerly in place of a sugar duty. The tax, however, has been suspended already for several years and now it is going to be suppressed entirely.

Certain reports, according to which a movement was on foot in Italy for the purpose of building up a large Italian beet sugar industry, have not proved quite correct. The idea has been considered in financial circles, but no plan has been formed so far and laid before the public, and there is evidently, from the present state of affairs, still a long way to the realization of the scheme, if there is any way at all.

The markets displayed last week much activity, a surprising fact in the week before Christmas, which is indicative of the growing confidence in the future of the article. There were also rumors of purchases for American accounts, but they were not confirmed, and it seems that some parcels taken for Canada have produced that impression. But in spite of the at least premature rumors the tendency was a rising one and prices gained about 25 per cent., actual 88 per cent. sugar now being quoted at Magdeburg at 10.25 to 10.35 marks, and delivery December is worth at Hamburg 9.50 to 9.57 marks. Refined are quiet and unchanged.

ROBERT HENNIG.

Hawaii.

Editor Louisiana Planter: The grinding season of 1897 and 1898 does not open with any very bright prospects for Hamakua and Kohala districts, as no more than half a crop can be expected on any of these plantations. This

unfortunate circumstance is due to the past dry season, which has, in some instances, quite destroyed the crops of sugar cane. The past season, however, was, we are glad to say, one of the best ever known here, and one of the plantations in Hamakua has rivaled the famous Ewa plantation in profits, if not in tonnage. This new plantation that has come to the front is the "Hamakua Mill and Plantation Company," but being a private concern nothing is heard about it. The large crop of cane last season and the superior milling facilities and the good weather, all combined, were the main reasons of the large output of sugar for 1897. But good work, good management and good methods of cultivation and fertilization probably had something to do with it as well. It must also be said that something is gained, too, by thoroughly trashing the cane and grinding it in the proper season, or when it is richest in saccharine matter.

Improvements are being made in most of the mills out here and quite a number will put in nine-roller mills and superheat clarification. These two improvements for some reason go hand in hand, and no one seems to think of putting one without the other. In quite a number of mills they are putting in six-roller mills and retaining the old three-roller mill, making nine in all. One mill will have a ten-roller mill, two three-rollers and two two-roller mills, but as this is only equal to four expressions, it is about the same as a nine-roller plant. It has been demonstrated out here that a six-roller mill will express all the juice that can be secured by pressure, and unless water is used in maceration a six-roller mill is as good as a nine.

The nine-roller mill is preferred here, and it begins to look as if we shall soon see them and the superheat clarification in every mill on the islands. The Honolulu Iron Works is also now making six and nine-roller mills, which are said to be equal to the famous Cora mills, and it is expected that they will give as good results.

We are glad to notice the adoption of steel gearing, large shafts and broader bearings in these new-style mills, for now an engineer need not be in constant fear of the mills breaking down. At the same time he can do as good work as can be desired by any one, and this is not only a great satisfaction to him, but to all concerned or interested in the subject.

GEORGE OSBORNE.

Hamakua, Hawaii, December 10, 1897.

Barbados.

DECEMBER 11, 1897.

The weather record of the fortnight may thus be summed, "the rain it raineth every day," but especially at night. Steady down-pours as much as one inch sixty-five parts in twenty-five minutes on the morning of the 30th of November; constant, not washing, but soaking in with gleams of sunshine intermixed. The abundant moisture at this growing period can not fail to add materially to the yield in the coming season. Twelve inches more cane at least and a richer and purer juice— $\frac{1}{4}$ to $\frac{1}{2}$ ton per acre will, we venture to prophesy, be

the addition which these glorious showers will make to our coming crop—if but nature will kindly hold her hand next month when the canes are ripening to the bill, and give them gentler showers and more sunshine. Already there is some stir of preparation for the approaching reaping season—plumbers, carpenters and wheelwrights are beginning to find employment, tinkering and repairing, and several windmills have even assumed their wings for the purpose of making syrup. In one or two instances we regret to record that incendiarianism has been the cause—Foursquare in St. Philip, Mapps, Lowthers, Charnocks and Lowland in Christ Church have thus severely suffered. The incendiary too knows his power, and, while safely secreting himself amongst a population whose moral sense, despite our elaborate and extensive system of education, is not sufficiently developed to prompt them to denounce the perpetrators of these atrocious acts, does not hesitate to proclaim his intentions in writing on conspicuous and convenient places, such as cabbage trees, which afford admirable columns on which to post advertisements. Had it not been for the constant wet, these intentions, as we may infer from the preliminary fires alluded to above, would have been more fully carried out; there is no crop in the world more exposed or more easily injured than sugar cane. Passers by with very slight risk of detection can break out tempting canes to appease their longings and exercise their jaws, and a few minutes after meet the owner or caretaker with perfect impunity because it is impossible to identify a sugar cane.

Even a child of tender age, so long as it is armed with teeth, can do irreparable and extensive injury, not only by breaking out canes, but by gnawing them while standing, just as a rat would do. But the fields are frequently subjected to a more extensive and business-like destruction. At reaping season it is frequently discovered that large patches have been topped for plants, and probably during the cane plant season sold to the very estate which has suffered the injury. It is inexplicable how these depredations can go on and be so seldom detected in a thickly peopled country. Surely whatever moral sense exists must be sorely blunted as regards sugar cane fields which are not only robbed but too frequently burnt without detection. The threatening placards are a new departure which may possibly have some interest for British Fire Insurance Societies. Cane thieves are seldom caught, only a percentage, which a decimal of very infinitesimal value might represent, while perhaps about one per cent. of cane burners are brought to justice. The latter is the moral offspring of the former; but the punishment meted out to these allied types is of a very different order. The thief who is constantly destroying is fined a shilling or two with the alternative of a few days in prison (really no fine at all when his gains are considered), while the incendiary is turned down to stand his trial at quarter sessions, and if convicted, serves in the penal brigade for a year or two. The moral is, teach the people, beginning with the children, to have as much respect for

"tuum" as for "meum," and when they transgress make the punishment deterrent.

The cane plant season has fairly set in and with regular periodicity the industry, careful of the present without pause or discouragement, is preparing for the 1899 crop. Already here and there—notably at Lower Greys in Christ Church and Waterford in St. Michael—the early plantings show high above the surface, but planters as a rule are not in a hurry, the ground is thoroughly soaked, there is every indication of a continuance of showers, and experience has proved that late planted canes of the new varieties arrow less freely and yield a richer and sweeter juice. There are several fine varieties of sugar cane in our island, all possessing admirable qualities, but amongst them there is one that is gradually and deservedly winning its way to the front in the estimation of planters—the Queensland Creole. The cane is exceedingly juicy and sweet, ratoons well and sparsely flowers, its only defect is (if it can be called a defect) that it does not yield sufficient megass to boil itself; obviously it would not do with our system of sugar making to put in an entire crop of this variety, but intermixed with more fibrous or pithy kinds, it materially increases the yield.

The free flowering of '96 scattered many seedlings throughout the island. It takes time to discover and propagate the best of these, but no doubt many very valuable canes will in a year or two be brought to the front. An observant planter friend tells us that he thinks he has discovered a seedling that is a true Bourbon, the specimen having all the external characteristics of the Bourbon. It would indeed be a boon to obtain a young Bourbon with all the virtues of the old but without its fatal liability to fungus—*Agricultural Reporter*.

Barbados.

DECEMBER 24, 1897.

The copious rains of the early part of the month have been followed by bright sunshiny weather, rather too warm for the season, for it is only within the last few days that we have experienced anything like the deliciousness of Christmas weather; but nothing could have been better for the old canes and the plants now being put in. The saturated earth and the warm suns have contributed materially to the growth and improvement of the former, while the latter can not but germinate freely, and root strongly in the warm moist bed which nature has prepared for them. Perhaps of all the periods of the year the most important and the most busy is the "cane planting fortnight," which precedes Christmas, and the holiday week connected with the festival. It is a matter of great importance to have the bulk of the plant in the soil before the year ends, and this season's activity has been increased by the desire to take advantage of the fitness of the ground. A fortnight ago we drew attention to the beautiful spring to be observed in early planted fields—a good augury, for nothing harasses the planter more than a bad spring and perpetual supplying sometimes even late into the reaping season. But nature has been kind to us this year, and

has blessed us with conditions which will soon cover up the length and breadth of our island with the greenery of two sugar cane crops, the young ones racing eagerly on the heels of their elders.

The bulk of the plants will be of the white transparent variety, which is certainly the standard cane of the present, but there are other canes winning their way into popular favor, notably a Dodds' seedling, known as 147. Some specimens of this cane cut for plants were recently submitted to our inspection, and certainly nothing could be finer—vigor, succulence and strength are its chief characteristics, a sweet, soft, juicy pulp, protected by a strong rind, defying fungus. If the ratooning qualities of this cane are up to mark, it can not fail to become a general favorite and to be widely propagated. Beyond cane planting, and the syrup-making which goes hand in hand with it, there has been nothing special in the local agricultural world. Energy has been concentrated on the one important operation, and every thing else has had to wait. But although thus busy planters have found time to hold their annual exhibition on the grounds of Harrison's College, where, on Tuesday, 21st inst., were displayed splendid specimens of the products of our island—gigantic yams, monster sweet potatoes, ears of Indian corn fully grained to the very tip end of the cob, plethoric pumpkins, immense roots of cassava, luscious and tempting fruits of all sorts, bananas, rind fruit, figs, and, as auctioneers say, many other valuable products, too numerous to mention. These things were all duly displayed for the admiring gaze of natives, and for the edification of the foreigner within our gates; and this friendly visitant we would remind that these splendid products of our soil were grown in the open fields, thus giving proof of the extraordinary and unimpaired richness of our soil, which two centuries of cropping has not diminished.—*Agricultural Reporter*.

Personal.

Mr. E. P. Munson, of Assumption parish, was at the Grunewald on Saturday.

Mr. John Vegas, of St. James parish, was in the city on a visit a few days ago.

Mr. A. R. Bougere, a prominent sugar planter of St. John parish, was a guest of the Hotel Royal last week.

Hon. James A. Ware, of Belle Grove plantation, in the parish of Iberville, was in the city on a visit a few days ago.

Mr. P. J. Casey, of the Casey & Hedges Manufacturing Company, Chattanooga, Tenn., large boiler manufacturers, was registered at the Hotel Grunewald a few days ago.

Mr. J. W. Purnam, of Washington, D. C., was in the city last Saturday. Mr. Purnam is a sugar house chemist and spent the recent campaign on one of our large plantations.

Col. R. H. Cobb, the lime specialist, was at the Royal on Tuesday. Anniston, Ala., has the honor of being the home of this genial gentleman.

Mr. Wibray J. Thompson, of Calumet, was registered at the St. Charles on Thursday.

BEET SUGAR.

Chino, California.

All work inside the sugar factory was completed last week, and now all is silent there and will remain so until shortly before the beginning of the next sugar campaign.—*Champion*, January 7.

Eddy, New Mexico.

The sugar campaign is practically over. The last beets of the harvest came up from the vineyard late yesterday evening, and during the night were put through the factory, thus ending the grinding for the present campaign. The factory will run several days yet on seconds, and then will close down, and the cleaning up process begun, to put it in condition for the campaign to open in the fall.

The beet acreage for the present season is already being arranged for, and farmers who desire to plant beets should make known at once the number of acres they wish to put in. There will be no shortage in the supply of beets the coming season, the company arranging so as to supply any possible deficiency.

A sugar shipment was made to El Paso yesterday.—*Argus*, January 7.

Beet Sugar Factory for Oregon.

Manager Cutler returned on Wednesday evening from his business trip to Oregon, where he went with Messrs. Eccles and Nibley to investigate a sugar factory proposition at La Grande.

He was much pleased with his trip, and is loud in his praises for that country and thinks it an ideal place for the sugar beet, in fact tests made here of beets grown there show them high in saccharine.

The Grande Ronde valley is a beautiful one and very productive, yielding splendid crops of fruit, potatoes and wheat. It has an altitude of about 2800 feet, so the season is about two months longer than here. This valley has an area of thirty by fifteen miles, and was a lake at one time, as the water marks on the surrounding mountains can still be seen, also the outlet where the water escaped. It is not in the rain belt, but irrigation is not necessary, as there is an underlying strata of water which keeps the soil moist by seepage. The top gets dry, but it will be damp a few inches below the surface.

The Commercial Club, an organization of the influential men there, have been investigating the sugar industry for over a year and are satisfied it can be made a success there. They now offer a bonus of \$80,000 for a 350-ton factory to be ready for the beet crop of 1898. A good site will likely be given also. A sufficient acreage of beets will be contracted for for five years at \$4 per ton delivered at the factory. There is abundance of wood which can be used as fuel, and plenty of water—in fact, it is just the place for a factory. If suitable freight rates can be secured it will be built at once. The gentlemen visited Portland to talk over this subject with the railway people and it will very likely be adjusted and the rates secured.

While up there they took a trip on the Willamette and Columbia rivers to Viento, on the White Salmon river, where Mr. Eccles has a large lumber mill. Here is also a government fish hatchery where they have 12,600,000 young salmon one month old. When these are a little older they are turned into the river. In September when the salmon come up to spawn they are so thick in the little White river that one might walk across the stream on their backs. Mr. Cutler says the great Northwest is prosperous in consequence of good crops and good prices. Many farm mortgages are being raised. They are anxious to have sugar factories there. The proposition of building a factory at Ontario is still being investigated. There may be a good opening for colonists at La Grande right away.

Mr. Cutler went to Ogden Friday to help select a factory site.—*Lehi Banner*.

Sugar Beets in South Dakota.

Editor Louisiana Planter: The Experiment Station at Brookings was among the first to undertake the investigation of the adaptability of sugar beets for the United States. This work was begun during the season of 1888. Seven varieties were cultivated on the college farm. The seeds were obtained from American seedsmen mainly, and the results were somewhat encouraging. This work was continued during three successive seasons following, with seeds imported from France and Germany, and four bulletins were issued on this subject. In April, of 1893, the last of these bulletins appeared. At that time, the conclusion was reached that South Dakota was well adapted to sugar beet culture, and the experiments were discontinued. Negotiations were begun with various parties concerning the erection of factories in the State, but the repeal of the sugar bounty and other adverse legislation prevented any projects from materializing.

In the spring of 1897, the agitation concerning the beet sugar industry was renewed, and at the request of Secretary Wilson further investigations were inaugurated. The government furnished this station with 500 pounds of imported sugar beet seed of the original Kleinwanzlebener variety. This seed was donated to the government by the Oxnard Company. The station had barely time to advertise among the farmers of the State for volunteers to assist in carrying on the work, and to distribute the seed before planting time. In reply to the investigations sent out, nine hundred and fifty-four farmers, representing nearly every county in the State, responded, and each was furnished with sufficient sugar beet seed to sow four square rods of ground.

In addition to making the test of the sugar beet seed sent out to farmers, this station also made trials of two samples of sugar beet seeds sent by Wohanka & Co., of Prag, and three other varieties furnished by Florimond Desprez, director of the Experiment Station of Capelle, France. It would be well to mention in this connection that similar work was inaugurated at the same time in all States lying within the sugar beet belt of the United States.

The favorable results obtained during preceding years gave the station confidence to believe that South Dakota would make no unenviable showing in this interstate trial. The results obtained have justified this expectation and it is very probable that no State will have a better showing when the data are all collected.

Notwithstanding this favorable showing, it remains yet to be stated that, so far as controlling factors are concerned, the State could have done better. In the first place, the ploughing should have been done in 1896, long before the plan for making the test had been promulgated. The farmers were obliged to do this ploughing in the spring, and nearly all who participated in the test did not have the proper tools for ploughing to the required depth. Again, it was unavoidable that weedy land was selected, and during the press of the abundant harvest just secured, the sugar beets did not receive proper attention. Again, many failed to grasp the idea that close, clean cultivation was necessary, and lastly, the spring was somewhat backward, the ground being thoroughly soaked with the ice-cold water resulting from the melting of the abundant snows of the preceding winter. This caused the seed to germinate slowly and left it in a tender condition when the late frost in May destroyed many of the weak growing plants. Also cut-worms and various other insects have been easily able to destroy the tender little plantlets in the small patches in which they were cultivated. In many instances stock have broken into the small plats and ruined them in a single night. But, notwithstanding, all these drawbacks, nearly every one of which could be avoided, and would be avoided were the industry established and large fields devoted to sugar beet raising, South Dakota will probably be second to none in the list of States.

There are misconceptions abroad as to the requirements of sugar beet culture. In the first place a rather dry climate and a northern latitude, in connection with a sandy, loamy soil are prerequisites. Some have held the idea that sugar beets ought to grow in Southern latitudes, the same as sugar cane. This will be found to be erroneous. The sugar beet requires sufficient moisture during the growing season to allow it to reach its mature shape, after which any further additions of moisture in the shape of fall rains, etc., are positively detrimental. During the warm, bright days in September and October, which South Dakota enjoys, the mature sugar beet leaves will lie rejoicing in the warm sunshine and storing away vast amounts of saccharine matter. Where fall rains occur, instead of storing up sugar, a new growth will set in and new leaves put forth and the beets are spoiled for sugar making purposes. It will probably eventuate that the whole of South Dakota lies within the sugar beet belt, and that her situation is climatically as good as that of any other State in the Union.

There are many advantages possessed by this State which will not be found to so great a degree in any other. Some of these are her vast and fertile, easily tilled, lands. In these

lands are vast stores of plant food, which in the older States it will be necessary to supply by means of fertilizers. In any county in the State large areas may be profitably devoted to sugar beet culture without interfering with the pursuits already in progress. Again, the dry, sunny fall weather not only insures a large percentage of sugar, but it also accounts for the splendid roads in all sections of the State over which large loads of sugar beets may be transferred with ease to beet sugar factories. This is an item which is destined to play a considerable part in the final and successful location of beet sugar factories. Moreover, the absence of a necessity for procuring fertilizers for years to come will also be a very potent factor. This State furnishes vast opportunities for capitalists to erect factories and to obtain control of lands at a very low cost to supply beets necessary to maintain factories of an enormous capacity.

Some idea of the results obtained during the present year may be gathered from the reports appended. These results are accurate, and are liable to change only through the taking into consideration of a very few belated samples of sugar beets. It will be noticed that fifty (50) counties are represented in this table. In some of these counties the percentage of sugar is exceptionally high. In these cases the conditions were more favorable to high percentages.

There seems to be some misapprehension as to percentages of sugar. The prevailing belief seems to be that a high percentage of sugar is the single requisite. This is untrue. Other factors which must be considered of equal importance are the purity of the sugar and the tonnage per acre. It is undoubtedly true that both a very high percentage of sugar and a very high tonnage per acre can be obtained nowhere. For instance, one must not look for a percentage of sugar exceeding twenty (20) and a tonnage of twenty (20) to thirty (30) tons per acre. It will be found that where these extraordinary percentages of sugar are found that the tonnage will be smaller. It is probable that the ideal conditions for establishing factories will be found in locations affording, say, from fourteen (14) to seventeen (17) per cent. of sugar, together with a large tonnage and a high purity coefficient. Factories are glad to accept sugar beets containing 12 per cent. sugar in the juice, with a purity coefficient of from 75 to 80.

After factories have been established in South Dakota for a number of years it will become apparent that results from the same section will vary somewhat from year to year, but this will probably always hold true: whenever the tonnage is high, the percentage of sugar will be medium; and whenever the tonnage is medium, the percentage of sugar will be, by way of compensation, much higher. There is probably little cause to fear that the sugar beet crop could ever prove a failure. In regard to percentages obtained from other countries, these are always variable factors, varying from 12 to 14 or 15 per cent. Results from all the States have not been published, but the daily runs of factories now in operation are announced from time to time through the

public press. It is probable that the general average which the whole State of South Dakota has shown in this test will equal if not exceed the rest.

JAS. H. SHEPARD.

United States Experiment Station of South Dakota, Brookings, S. D., January, 5, 1898.

Professor Shepard then follows with a statement of the results from fifty counties in the State, covering 342 samples, which showed 16.11 per cent. of sugar in the juice, with a purity of 85.55 per cent. Four samples from Harding county averaged 21.77 per cent. sugar, one from Hutchinson county tested 20.51 per cent., while Codrington county furnished the poorest average; her four samples, however, gave 13.57 per cent. sucrose. Surely the possibilities for beet sugar in South Dakota are enormous.

Trade Notes.

Low Grade Molasses.—To know what to do with low grade molasses is as much a desideratum to the sugar planters at present, as was the disposition of cotton seed many years ago to the cotton planters. As is well known of the latter it was left in mountain-like piles on the plantations and around ginhouses to rot, emitting an unhealthy effluvia, being of little use to man or beast, but "presto change," thanks to science, modern intellect and energy, this former waste is now turned to the benefit of man and beast, as well as the vegetable kingdom, and the entire product is sought for from many foreign countries, as well as a healthy and constant domestic demand. Why can not science and energy do as much with low grade molasses, and rid our sugar planters of a nuisance and waste even greater than was the cotton seed, yet of something certainly as valuable if turned to proper account? We are glad to see that efforts are being made in this direction, and if Mr. Robert H. Chaffee, who has had so many years' experience exclusively in the molasses business, carries out his ideas, he can justly be termed the sugar planters' "best friend," for it will not be long before immense cargoes of this stuff, now almost a total loss to the planters, will be going abroad to ready takers. Mr. Chaffe is a son of the late John Chaffe, too well known in Louisiana and other Southern States to need any introduction through these columns. His advertisement appears in this journal, and the planters would do well to communicate with him before pumping their low grade molasses into the river or bayous.

Mr. J. P. Baldwin and Mrs. Baldwin, of St. Mary parish, registered at one of our leading hotels during the past week.

Mr. L. S. Alleman, of the Upper Coast, was in the city on a visit a few days ago and registered at the Hotel Grunewald.

Mr. J. B. Lyon, a Chicago man, who is interested in sugar, was in the city on a visit a few days ago.

Crystallization of Sugar in Motion.

[A paper by MR. E. P. EASTWICK, Jr., read before the Louisiana Sugar Planters' Association, January 13, 1898.]

Crystallization is the property a class of substances possess of assuming a regular defined solid form in changing from a liquid to a solid state.

Solid substances, which are rendered liquid by the application of heat only, are generally termed *fusions*. Those, which are dissolved in other substances, which are liquid, are known as *solutions*, and the medium of their solution is called the *solvent*.

A substance dissolves in a liquid in consequence of an affinity between its molecules and those of the liquid, and the degree to which a substance is rendered liquid by a solvent is the measure of its solubility. As a rule, solubility varies with the heat applied, although there are exceptions when it is constant at all temperatures.

The solubility of most substances is increased by heat, and a solvent which has absorbed a maximum amount of substance under given conditions is said to be *saturated*, and the solution is a *saturated solution* for these conditions, and any further addition of the substance remains undissolved in the liquid.

When the conditions attendant on a saturated solution are changed, as by the lowering of the temperature or by decreasing the solvent by evaporation, the solvent, having diminished capacity, either immediately releases a portion of the dissolved substance or holds it temporarily in a state of supersaturation.

In many cases the dissolved substance, on separating from its solution, in unchanged composition, is deposited in regular forms (sometimes modified by conditions) called *crystals*, which are often in combination with water in definite proportions, but in many instances, also, with no chemically combined water and then known as *anhydrous*.

A substance in passing from a solid to a liquid is, with a few exceptions, always attended by the absorption of heat in a latent state, and requires, according to its nature, various degrees of sensible heat for its sustenance. When the substance returns to its solid form this latent heat, which is termed the *latent heat of liquefaction*, is discharged and becomes again sensible heat.

Cane sugar (sucrose, $C_{12}H_{22}O_{11}$), in its usual form, is an anhydrous crystalline substance soluble in water in varying quantities at different temperatures. According to Berthelot and Scheibler a saturated sugar solution contains:

66 per cent. sugar at $12\frac{1}{2}$ deg. C.

71 per cent. sugar at 45 deg. C.

Sugar* at 173 deg. to 177 deg. C. is fused and melts, without loss of weight, to a clear liquid, which on cooling solidifies to an amorphous mass called *barley sugar*, gradually becoming opaque and somewhat crystalline.

Flourens gives the following table for the solubility of sugar in water at different temperatures:

TABLE—SOLUBILITY OF SUGAR IN WATER.

Temp. Deg. C.	Sugar Per Cent.	—Deg. Baumé.— Obs. Temp. 15 deg. C
0	64.9	35.3
5	65.	35.35
10	65.5	35.45
15	66.5	35.5
20	66.5	35.6
25	67.2	35.8
30	68.	36.
35	68.8	36.2
40	69.75	36.4
45	70.8	36.75
50	71.8	37.1
55	72.2	37.5
60	74.	37.9
65	75.	38.3
70	76.1	38.6
75	77.2	39.
80	78.35	39.3
85	79.5	39.65
90	80.6	39.95
95	81.6	40.1
100	82.5	40.3

From its solution in water sugar, under a process of slow evaporation, separates in large transparent crystals having the form of monoclinic prisms with hemihedral faces.

A hot saturated solution of sugar upon cooling becomes supersaturated, and deposits numerous small crystals of sugar, which increase in number and decrease in size with increased rapidity of cooling, and this separation of the solid sugar from the solution continues until, through release of sugar and increased relative proportion of water, the resultant solution is reduced to the saturation point corresponding with the final diminished temperature. To effect further crystallization at this temperature the solution must first be deprived of a portion of its water by evaporation, and then again brought to a condition of supersaturation.

Under a state of rest the crystals produced, on rapid cooling of a hot solution, are generally numerous, irregular in size, adherent, and tend to form a solid mass, but if during the time crystallization is taking place the solution is kept in continuous motion, so that the crystals as they form are separated and distributed more or less evenly in the solution, the number of crystals will, as a rule, not be so great, and they will be more uniform and larger in size.

In the manufacture and refining of sugar the juices and solutions operated upon are not simple solutions of cane sugar, but contain other substances, generally denominated non-crystallizable sugars and "non-sugars." These impurities are uncrystallizable, or are rendered so by the colloid constitution of the major portion, and their presence prevents crystallization of cane sugar, in degree varying with their nature, and in proportion to the quantities.

The primitive method of manufacturing sugar consisted in concentrating more or less clarified cane juice in open kettles, at a high temperature, to a degree of saturation known as "string" or "ball proof," and then allowing the concentrated solution to slowly cool in the same receptacle, or after being transferred to a second one, while at the same time agitation was manually applied, usually by stirring, so that better crystallization would be effected.

Under the modern system, adopted since the introduction of the vacuum pan, concentration and crystallization are effected continuously and simultaneously, and crystallization takes place while the solution is in constant motion and in a state of supersaturation, caused by ebullition and evaporation, respectively.

So long as the sugar contained in a solution in process of evaporation largely preponderates over the non-sugar present crystallization proceeds rapidly, but after the separation of a certain quantity of sugar, when the relative proportion of non-sugar becomes greater, the formation and growth of crystals is slower, and eventually requires a length of time and a desirable application of motion, which it is not practical to give in a vacuum pan. It has, therefore, been customary in sugar houses to boil to grain in the vacuum pan only pure juice and a small proportion of the higher test "machine washes" having a "coefficient of purity" exceeding a certain per cent., which experience has shown will grain rapidly enough to guarantee an economical employment of the vacuum pan for this purpose; the partially exhausted sugar solutions, which in test fall below the limit adopted for purity, are simply concentrated in the vacuum pan and then transferred to tanks or wagons where they may remain a sufficient time to allow the crystallization of all the remaining extractable sugar they contain. This constitutes the "hot room process," so well known to all Louisiana planters.

The disadvantages and objections to the process of quiescent crystallization of sugar in hot rooms are many, and their influence as effecting the economical manufacture of sugar are worthy of serious consideration by all those interested in the industry in this State, especially in view of the demand for cheaper production of sugar from cane to successfully compete with the American beet sugar of the future.

In the first place, a hot room requires space, and frequently necessitates an additional building separate from the rest of the sugar house, and specially constructed for this purpose. It must be equipped with a large number of wagons, or tanks of large capacity, machinery for handling and conveying the "magma," and with extensive heating apparatus for controlling and regulating the temperature of the room. All this together makes the cost of a hot room a large item in the total cost of a sugar house, and when the interest on the extra amount of money here invested, and the cost of repairs, are considered in addition to the cost of labor required for handling and the fuel for heating, it is apparent that the hot-room process is necessarily a very expensive one.

Again, the process is a slow one, requiring for its effective operation, from a few days to several weeks, according to the amount of impurities contained in the solution dealt with. This is owing to the fact that when a crystal forms in a sugar solution, that portion of the solution directly adjacent to and surrounding the crystal is exhausted of all of its extractable sugar, and the further growth of the crystal is retarded unless continuously brought in con-

* The term sugar used in this paper always refers to cane sugar as above defined unless otherwise specified.

taut with other portions of the solution from which the available sugar has not already been extracted. When crystallization takes place in a sugar solution at rest the movement of the crystals in the solution is very slight, as is likewise the circulation of the liquid, hence the renewal of the solution surrounding a crystal is slow, and is not sufficient to supply the crystal with all the sugar it is capable of attracting and taking up; its growth is therefore checked and there is a constant tendency for new crystals to form elsewhere in the richer or cooler portions of the solution. This explains the usual small and uneven grains of wagon sugars.

Another cause for slow crystallization of sugar from solutions at rest is the result of the liberation of latent heat of liquefaction. This heat becomes sensible when crystallization takes place and is communicated to the surrounding solution, which, being a poor conductor of heat, is thereby raised in temperature, and soon reaches such a high degree that further crystallization temporarily ceases. With the suspension of crystallization the evolution of heat is interrupted, and as the solution then slowly cools again to the temperature corresponding to the saturation point, crystallization begins anew, giving out latent heat as before, which in turn is communicated to the solution. Thus crystallization, at rest, goes on in slow and intermittent stages, the rate at which it proceeds varying with the rapidity of radiation of heat from the mass, which is dependent upon the impurities in the solution, the shape and bulk of the tank in which the solution is contained and the temperature of the hot room.

But the objections to the hot-room process are not only of time required and cost of building and machinery, another equally important to be considered is the loss of sugar which occurs in the use of wagons or tanks. This is in part brought about by the action of long continued moderate heat on the cane sugar causing a slow but constant inversion. Moreover, the distribution of heat in a quiescent crystallizing mass is, in consequence of its poor conducting power, always uneven, and the temperature is ordinarily greatest at or near the centre, where radiation is least. It therefore often becomes so heated at this point as to result in a considerable destruction of sugar, and a marked darkening of the molasses arising from the action of the heat on the glucose. This is commonly termed "burning" in wagons.

A further loss of sugar, attendant on the usual prolonged process of crystallization in hot rooms, is caused by fermentation, which usually sets in, destructive to sucrose, a short time after *masse-cuite* is placed in a hot room. The foaming over of wagons in a hot room is generally an indication of fermentation and not always of "too hot boiling in the pans," to which it is commonly attributed.

With the object of overcoming the serious losses of sugar which, occur in the hot room process, and of shortening the time required for the process and otherwise reducing the expense of manufacturing, the system of "crystallization in motion" has of late years been

extended so as to apply to the final stages of sugar production, and the employment of mechanical apparatus has been adopted to produce the movement necessary for rapid and continuous crystallization, which in the vacuum pan is caused by ebullition.

The application of the system is simple and is in brief as follows: The juice and a portion of the higher test sugar solutions are boiled to grain in the vacuum pan and worked off in the centrifugals, and the weak or partially exhausted solutions resulting are collected and stored in tanks. When there is sufficient accumulation of "seconds" or "low stuff," the vacuum pan is started on a new strike, and a small quantity of "syrup" is drawn in and boiled down to grain. In place of syrup some of the seconds itself, when it is high enough in test to grain without too much delay, may be used for this purpose, or better a mixture of seconds and syrups, but in the latter case as small a quantity of the syrup as possible should be used, the object being simply to introduce into the pan at the beginning, without materially raising the test of the mass, a number of small crystals of sugar to form nucleus for the sugar contained in the solution to build upon. As soon as the proper amount of grain is formed the "low stuff" is drawn in to fill the pan, and the mass concentrated to the required density. The concentrated mass is then discharged directly into the crystallizers.

The crystallizers are usually tanks of cylindrical shape, either open or closed at the top, and surrounded with a water jacket or otherwise arranged for controlling the temperature of the contents, and provided with moving mechanism within or some other means for agitating and keeping the contents in constant movement.

As soon as the crystallizer is filled motion is started, and the temperature of the entire mass gradually and uniformly reduced, by the cooling water, until all the available sugar has thus been crystallized out. The movement of the crystallizer is then stopped and the contents discharged into a mixer, and worked off in centrifugals in the ordinary manner.

Crystallization in this way proceeds regularly and rapidly under conditions similar to boiling in a vacuum pan, and accomplishes in from eighteen to thirty hours what would require days and even weeks in quiescent crystallization tanks.

In the beet sugar factories, where the system of crystallization in motion is employed, the general method of manufacture is to boil the concentrated clarified juice from the multiple effects with more or less seconds taken in (according to grades of sugar to be made, and to the crystallizer capacity), and to work off the *masse-cuite* in centrifugals as white sugar or first sugars; the "wash" coming from this is collected, and a portion of it, sufficient to partially fill a pan, is drawn in, as the first charge, and boiled until a few grains appear. The pan is then rapidly filled up, the mass concentrated to a Brix of from 87 deg. to 90 deg. and discharged into the crystallizers, where it remains about a day. At the end of

this time the magma, which will have an average coefficient of purity between 70 and 75, is worked off in the centrifugals, producing a large grain second sugar and a molasses low enough in test to be barreled, a result which it would require a week at least to effect in wagons.

Crystallization of sugar in motion was introduced several years ago, and the system is now employed in many refineries and in nearly all the beet factories of Europe, where it has proved a marked success, and almost entirely supplanted the system of hot rooms. It has also been successfully applied in cane sugar houses abroad.

In this country the adoption of the system has so far been confined, mainly, to the beet factories, and in the few cases in which the process has been applied to manufacturing of sugar from cane, its advantages over the ordinary hot rooms have been clearly demonstrated.

The crystallizer in a sugar house really takes the place, or performs the duty of a supplementary pan for seconds. The pure juice only, or with a small amount of "seconds" from first sugars are boiled to grain in the vacuum pan, and the "wash" from these sugars is concentrated and crystallized in the crystallizers as previously explained. In this way the complete extraction of all the available sugar in the juice, and the separation of the molasses, is accomplished by one boiling to grain and one concentration in the vacuum pan; there is no working over and over again of syrup and high molasses with the production of "thirds," "fourths" and "fifths," as they are called.

It is further claimed for the system of crystallization of sugar in motion, as an advantage over crystallization at rest, that in addition to the greater amount of solid sugar which may thereby be extracted from a solution, experience has proved that, on account of the larger and more uniform size of the crystals, which form, the sugar is more readily and rapidly "dried" in the centrifugals, and there is less tendency for the impurities present in the ordinary syrups and molasses to attach themselves. The sugar is, therefore, freer to separate from the molasses and is of a better appearance and quality; moreover, as there are a less number of fine grains formed in the *masse-cuite*, there will not be so much sugar passed through the sieves of the centrifugals, and in consequence the amount of sucrose in the molasses will be reduced and the test* of the molasses will be lower. At the same time the molasses will be of a lighter color, owing to the uniform reduced temperature of the mass during crystallization.

Summarized, the advantages of crystallization of sugar in motion over quiescent crystallization of sugar in wagons, or tanks, are as follows:

*It is not meant by this that the "polariscope test" of the molasses from sugar produced in a crystallizer is always lower than that produced in wagons or tanks in the ordinary working of a sugar house, for, as a rule, the fermentation which takes place and the heat evolved in the wagon results in a destruction of cane sugar and formation of levulose, which materially affects these tests and causes them to show an apparent economy which is very misleading.

A. Less inversion and destruction of sucrose, and hence

B. Increased quantity and better quality of sugar produced, and

C. Decreased quantity and lighter color molasses produced.

D. Reduced cost of building and machinery.

E. Reduced expense of labor.

And to these may be added the advantage of a sugar house being in a condition to be immediately and completely closed at the end of a season, having no sugar remaining in wagons or tanks subjected to inversion, to be worked off several weeks later at extra expense for fuel and labor, which not only means reduction in loss of sugar and cost of manufacture, but probably an earlier realization on the production, and a saving of the interest expense of carrying for several weeks a large amount of sugar in process of manufacture.

Crystallization of sugar in motion is no longer an experiment, for its merits have been proved in practical working. The process is especially well adapted to the sugar houses of Louisiana, and its general adoption will most certainly follow in the near future, when the advantages of the system over the present hot rooms are better understood.

Crystallization by Motion.

[A paper by Mr. Jos. E. KOHN, read before the Louisiana Sugar Planters' Association, January 15, 1898.]

In using any material for the production of sugar, such as beets or sugar cane, the criterion of our entire work is, and always will be, the masse cuite, which forms a conglomeration of all we wish to obtain by our labor, as well as of that which we are not able to find out by technical processes, or have failed to obtain through some fault in the manipulation.

According to the chemical combinations in the masse cuite, we are able to regulate the treatment but these combinations vary according to the conditions of the land in which the beets or cane have been produced, the ripeness or over-ripeness of it, the condition of the raw material, as regards being frozen or decayed, or grown rank; indeed, even the fertilizing of the lands affects the chemical conditions of the masse cuite, and the technical means employed play a part. For instance, the limestone used for obtaining the lime, the manner of affecting the saturation, etc.

By the whirling of the centrifugal, or by the Steffens washing process, we obtained the desired result—"sugar," and the draining off, in form of syrup.

By the present method, now universally employed, of boiling the masse cuite, the mass is cooked until granulation commences in the vacuum apparatus, and when the mass obtained by boiling with this apparatus is turned out into coolers, it may happen that the grain "grows" when sugar is still in solution, the saturation point of which solution stands higher than the temperature of the masse cuite in the coolers. With such an adulterated mass it matters not if the growth of the crystals proceeds in absolute rest or in motion; still, in the modern manufacturing of sugar a

gentle motion of the mass has been adopted from purely economical reasons, for, when we have reached the point where, in spite of the cooling, the masse cuite is able, by the simple use of a spiral outlet, to pour itself into the centrifugal, we will certainly use such an apparatus instead of employing hands to transfer the thickened mass into vats.

It is, however, quite different with syrup and molasses boiled down under a vacuum which contain such a quantity of salts that granulation is not possible, therefore they are boiled down to "blank"—that is, they are boiled to a certain degree of thickness which is most favorable for its production and varies from 45 to 46° deg. Baumé, and only after a certain time and the continual keeping up of a favorable temperature does sugar crystallize from the boiled-down mass.

The temperature is the same as that which keeps syrup and molasses in a tolerably thin state—about 40 deg. R., or 122 deg. Fahr.; the time depends on the purity of the mass and varies from a few days to weeks or even months. This is a season of tedious waiting. How does the crystallization take place in this case? According to the tables of Dr. Herzfeld, in the temperature given above, pure water at 122 deg. Fahr. will dissolve 72.25 per cent. of sugar, but in case of the existence of various salts, the solubility of sugar is large, and the same water is able to keep dissolved sugar in solution without the sugar suffering loss in form of crystals.

When the boiling down was done with a temperature of about 180 deg. Fahrenheit, at which temperature the solubility is equal to 78.36 per cent., necessarily during a cooling off to 122 deg. a certain per cent. of dissolved sugar must be lost.

On this account the temperature of the syrup might be allowed to fall and thereby get out all the sugar. But that would not follow. With the falling of the temperature the consistency of the molasses or syrup changes, the mass becomes tough or flows very thick, indeed, and prevents crystallization. How is this avoided? Well, the crystallization goes on, as the sugar molecules, which are dissolved in the water, endeavor to attach themselves to each other through their affinity, in order to form what we call crystals, and when the power of affinity is greater than the power of repulsion, which would prevent their uniting, then a creation of crystals takes place. Now, if the distance between the molecules is so great that the power of attraction can not overcome the power of repulsion, which the presence of non-sugar elements creates as an obstacle, then crystallization becomes impossible.

We see plainly that the consistency of the boiled mass, which depends on the temperature, is of great importance, for it determines at once the proportion of repulsion and attraction of two sugar molecules. We see, first, that we must cool, in order to diminish solubility, but at the same time must heat, or rather keep up a certain degree of consistency by which the sugar molecules are easily attracted to each other.

By this consideration we are involuntarily

led to the thought whether or no, it be possible, since chemical means are not used, to use mechanical means to keep this boiled-down mass in a thin fluid state, with a lower temperature, or in other words to diminish the resistance during the forming of the crystals. This resistance is to be lessened by mechanical means only when we lessen the distance between the molecules, whereby their power of attraction increases in quadratic proportion, and on this thought is founded the modern crystallization of the boiled-down mass, which, as it is produced by motion of the mass, is called crystallization by motion. In contradistinction from this we have crystallization at rest.

In crystallization by motion the distance between the various sugar molecules diminishes because they are set in various correlations by the mixing apparatus, and consequently the union of the molecules can take place at every favorable opportunity, whereby the entire process is naturally considerably shortened. While formerly it was necessary to wait weeks or months for the formation process of crystals to be completed, we are able to-day to effect it in a few hours, or at most in three or four days, according to the purity of the boiled-down mass. How far the exhaustion of crystal formation makes a high or low quotient of purity depends entirely on the amount of non-sugar elements contained in the mass, and also on their character.

We know that alkali and sodium salts are the most important factors of molasses, particularly in their organic combination; the more therefore of these salts are in solution the more crystallization is retarded; the higher the quotient of purity, the more sugar goes in form of molasses from the factory, unless one does not work according to Steffens' process of separating. Therefore let us, to prevent this, use the least possible quantity of alkali and sodium salts, with a special view to diffusion and saturation, that is to say, in the way of impractical, useless washing with lye of the portions of the thickened mass and by saturation.

Let us therefore endeavor to dissuade the farmers from the excessive fertilizing with alkali, or Chilian saltpetre.

Crystallization by motion has a great future; the results obtained by it speak for themselves everywhere. The gain in sugar is considerably greater, the quotient of the bagasse falls, with favorable work, below 57 per cent., while formerly it rarely fell below 63, and never below 60 per cent.; and the most important of all, the time needed, is incredibly diminished. Naturally, the manipulation is rendered easier and all unnecessary labor is avoided, which facts weigh not a little in the matter, since thereby the cost of production is considerably reduced.

Mr. J. Henry Putnam, a prominent planter of Abbeville, was at the Royal last Wednesday.

Mr. J. C. Mahon, one of the veteran sugar planters of the Teche country, was in the city on a visit a few days ago and registered at the Hotel Royal.

JANUARY 15.

WEEKLY MARKET REPORT.

1898.

SUGAR.	January 8.	January 10.	January 11.	January 12.	January 13.	January 14.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Strict Prime		3 7/8 @ 3 9/8	3 7/8 @ 3 9/8	3 7/8 @ 3 9/8	3 7/8 @ 3 9/8	3 7/8 @ 3 9/8	3 7/8 @ 3 9/8	
Prime		3 5/8 @ 3 7/8	3 5/8 @ 3 7/8	3 5/8 @ 3 7/8	3 5/8 @ 3 7/8	3 5/8 @ 3 7/8	3 5/8 @ 3 7/8	
Fully Fair		3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	
Good Fair		3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	
Fair		3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	
Good Common		3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	3 1/8 @ 3 3/8	
Common		3 @ 3 1/8	3 @ 3 1/8	3 @ 3 1/8	3 @ 3 1/8	3 @ 3 1/8	3 @ 3 1/8	
Inferior		— @ —	— @ —	2 7/8 @ 2 1/8	2 7/8 @ 2 1/8	2 7/8 @ 2 1/8	2 7/8 @ 2 1/8	
Centrifugal.								
Plant'n Granulated		4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	
Off Granulated		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice White		4 3/8 @ 4 3/8	4 3/8 @ 4 3/8	4 3/8 @ 4 3/8	4 3/8 @ 4 3/8	4 3/8 @ 4 3/8	4 3/8 @ 4 3/8	
Off White		4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	
Grey White		4 @ 4 1/8	4 @ 4 1/8	4 @ 4 1/8	4 @ 4 1/8	4 @ 4 1/8	4 @ 4 1/8	
Choice Yellow		4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	
Prime Yellow		4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	4 1/8 @ 4 1/8	
Good Yellow		3 7/8 @ 4	3 7/8 @ 4	3 7/8 @ 4	3 7/8 @ 4	3 7/8 @ 4	3 7/8 @ 4	
Seconds		2 7/8 @ 3 1/8	2 7/8 @ 3 1/8	2 7/8 @ 3 1/8	2 7/8 @ 3 1/8	2 7/8 @ 3 1/8	2 7/8 @ 3 1/8	
MOLASSES.								
Open Kettle.								
Fancy		— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 20	
Choice		25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	— @ 18	
Strict Prime		22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	— @ 17	
Good Prime		— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	16 @ 15	
Prime		— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 13	
Good Fair		— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 12	
Fair		— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 11	
Good Common		— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 10	
Common		— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 9	
Inferior		— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 8	
Centrifugal.								
Fancy		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice		13 @ 13	13 @ 13	13 @ 13	13 @ 13	13 @ 13	— @ 9	
Strict Prime		10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	— @ 8	
Good Prime		— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 7	
Prime		— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 7	
Good Fair		— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	
Fair		— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	
Good Common		— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Common		— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4	
Inferior		— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4	
SYRUP.		18 @ 22	18 @ 22	18 @ 22	18 @ 22	18 @ 22	14 @ 15	Steady.

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugals, 96		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated		4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.10 @ —	Quiet.
Standard A		4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	8.98 @ —	
Cuba, 96, Cif.		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50		— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.		11s. 4 1/2 d.	11s. 4 1/2 d.	11s. 4 1/2 d.	11s. 4 1/2 d.	11s. 8 d.	11s. 8 d.	Quiet.
A. & G. Beet		9s. 8 d.	9s. 4 1/2 d.	9s. 3 d.	9s. 8 d.	9s. 3 d.	9s. 5 1/2 d.	Firm.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.53	
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.53	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.09	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Strong.
Rosetta Ex. C	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 8.97	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Jan. 5	Tons	231,859
At four ports of Great Britain to	Jan. 1	"	84,000
At Havana and Matanzas to	Jan. 5	"	9,250

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JAN. 14, 1898.

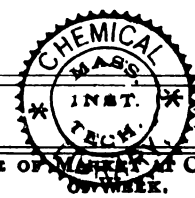
	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	2,021	69,269
Sold	3,021	77,168

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO JAN. 14, 1898.

	SUGAR	MOLASSES
	Hhds.	Barrels.
Received	15,082	1,095,490
Sold	15,032	932,871
Received same time last year	22,008	1,087,592

JANUARY 15.

WEEKLY MARKET REPORT.



RICE.	Jan. 8.	Jan. 10.	Jan. 11.	Jan. 12.	Jan. 13.	Jan. 14.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK.
ROUGH, 8 bbl.....		2 00@4 00		1 50@4 00	1 50@4 00	1 50@4 00	2 00@4 00	Strong.
CLEAN, Fancy.....		5 1/2@5 1/2		5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@6	
Choice.....		5 @5 1/2		5 @5 1/2	5 @5 1/2	5 @5 1/2	5 1/2@5 1/2	
Prime.....		4 1/2@4 1/2		4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@5	
Good.....		4 1/4@4 1/4		4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	
Fair.....		4 @4 1/4		4 @4 1/4	4 @4 1/4	4 @4 1/4	4 @4 1/4	
Ordinary.....		3 1/2@4		3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@3 1/2	
Common.....		3 1/4@3 1/2		3 1/4@3 1/2	3 1/4@3 1/2	3 1/4@3 1/2	— @ —	
Inferior.....		Nominal.		Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....		2 @2 1/2		2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	
BRAN, 8 ton.....		9 50@10 50		9 50@10 50	9 50@10 50	9 50@10 50	9 00@10 00	
POLISH, 8 ton.....		15 00@—		15 00@—	15 00@—	15 00@—	16 00@17 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JAN. 14, 1898.

	SACKS ROUGH.	BBLs. CLEAN.
Received.....	9,943	—
Sold.....	12,203	3,990

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO JAN.
14, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BBLs. CLEAN.
This year.....	365,177	2,820
Last year.....	361,609	3,256

Sugar.

The sugar market was firm at the end of the week. Receipts were lighter and transactions were in consequence of less volume.

Molasses.

Open kettle molasses is easy, but both syrup and centrifugals show a steady tone.

Rice.

Rough rice was strong and in active demand at the end of the week, but arrivals were small and trading was light. Clean was in good demand.

Sugar in London.

During the past fortnight the market has almost uninterruptedly advanced, not from speculation but from a growing conviction that important events are likely to occur during the coming year. That a conference to discuss the continental bounties will be held seems certain, but whether any effective agreement will be arrived at is doubtful. No patchwork or compromise, however, will touch the points at issue, and absolute abolition of the bounties can be the only means of bringing about a state of things which is earnestly desired by the majority of the people connected with the sugar trade. The advance in the price of beet which has taken place is already important, but cane refining kinds have been slow to move, though from the demand in America for all sorts of cane sugar the stocks here are likely to remain as small as they have lately been. There have been no public sales since December 17, but, in sympathy with other sorts, grocery kinds have met with more attention, and private business shows an advance in value of fully 6d. per cwt., while in London yellow crystals are also 3d. per cwt. dearer. The imports of crystallized raws to London for the fortnight ending December 30 amounted to 2872 tons, and for the whole year to 32,250 tons, against 55,397 tons in 1896.—*Produce Markets Review*, January 1.

Trade Notes.

Plantation Harness and Saddlery.—We have been requested to call the attention of the planting community to the fact that the Whitney & Sloo Company are the largest manufacturers in the South of saddles, harness and collars of all kinds; that they have their own collar factory and employ about one hundred people; that all of these goods are made by them in New Orleans.

The largely increasing business of this mammoth establishment has led the firm to lease additional warehouse room, and they believe that their own facilities for manufacturing, the excellence of their work and the fact that the work is made in New Orleans should lead the planters of the State generally to at least investigate the character of the work turned out and the prices at which the goods are offered, which, taken together, The Whitney & Sloo Co. believe will convince any close buyer that he has at last struck headquarters and the bottom prices for these goods. Call and see them at 108-112 North Peters street.

The Sugar Trust Attitude.

As a result of the present dispute between the American Sugar Refining Company and the Jersey City Street and Water Board, over water taxes, the trust yesterday announced that it would close down its plant in that city unless a satisfactory settlement was reached. Six hundred men were laid off yesterday, leaving but five hundred at work.

The trouble arose over the refusal of the Jersey City Street and Water Board to lower the water tax of the company from 75 cents to 67 1/2 cents per 1000 cubic feet, or from \$100 to \$90 per 1,000,000 gallons. The sugar people threatened some time ago to leave Jersey City unless the reduction was made. Mayor Hoos holds that the 75-cent rate is a perfectly fair one and that the street and water board should not yield.—*N. Y. Journal Commerce*.

New Rates on Glucose.

The board of managers of the Joint Traffic Association recommend that the commodity rates authorized in Joint Traffic Association freight circular No. 1125, dated August 14,

1897, on glucose and glucose syrup, in car loads, from all points in the territory of the Central Freight Association to the western terminal of the trunk lines and points east thereof, on the basis of sixth-class rates, be withdrawn, and that rates thereon be restored to the basis of the official classification, effective December 10, 1897, except that the following commodity rates on glucose (not including glucose syrup) shall be continued in effect on and after December 10, 1897: Glucose in car loads, originating at Chicago, East St. Louis, Peoria and Rockford, Ill., and Davenport and Marshalltown, Iowa, only, destined to the western terminal of the trunk lines and points east thereof, on the basis of sixth-class rates.—*N. Y. Journal of Commerce*.

The Best Rice Pays.

"Whatsoever a man soweth that also shall he reap." Never was a natural law more epigrammatically expressed nor more terribly demonstrated than in a very large per cent. of the rice crop of Southwest Louisiana. Unwittingly through carelessness or ignorance, a host of planters sowed on foul lands or used poor seed, or gave slovenly culture, and the result has been a most degenerate outcome; not only ruinous to the negligent, but damaging even those who exercised care, and, worst of all, has given Louisiana rice a bad reputation. Rice may not be profitable for some to raise, but whoever may engage therein should seek and adopt every possible precaution to secure the best results. In spite of the depression of market, the outcome in the Carolinas attests the value of a crop of high standard quality.

We submit that no other cereal offers anything like so good a monetary outcome as rice, and that with clean land, good seed (either Carolina or Honduras) careful culture, splendid results can be obtained right here, for our section is in some respects superior to the Atlantic coast. The production has never been up to consumptive requirements, not even in 1892, nor again this last year; in other words, the demand waits upon us, ready for our product if it be of the character desired. The consumer, however, is particular; he wants good rice: will pay good prices—much more than for other cereals—and by so much as this country fails to make it, imports are made. The sad experiences of the past may, in the end, work great good, if thereby is learned the better way.—*Gueydan News*.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A FIRST-CLASS PLANTATION HOSTLER. Address 156, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR MAKER, a crop to take off for the season of 1898; At references from former employers. GEO. H. DOUGLASS, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTATION by the year, as carpenter and wheelwright; never drink, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address P. O. BOX 422, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. Franklin street, city. 1-13-98

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—ENGINEERS WHO UNDERSTAND sugar, coffee and rice machinery, also sugar making, to travel and sell machinery in foreign countries; knowledge of Spanish language necessary. Address, giving references and state experience, MANUFACTURER X, care this paper. 1-3-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT MAN-ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address E. O. W., Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN-Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address A. B., 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address C. LAURENT, Whitecastle, La. 12-28-97

WANTED—ENERGETIC AND STRICTLY SO-ber young man wants position as manager of small store on plantation, on salary or commission; gilt-edge reference as to ability and character. Address B. B., 1923 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address W. T., care Daily Journal, Plaquemine, La. 12-23-97

WANTED—POSITION AS CLERK IN A COUN-try or plantation store; not afraid of work. Address CLERK, Postoffice Box 69, New Orleans, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt-edge references. Address B. B., 1923 Bayou Road, New Orleans. 12-17-97

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address COMPETENT, Box 649, New Orleans. 12-21-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address R. V. H., 129 Decatur street, New Orleans. 12-16-97

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898, at living salary. Address BOB, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and hapides parishes and some New Orleans merchants. Address SMITH, care this office. 12-16-97

WANTED—A FIRST-CLASS PAINTER, AC-customed to country and plantation work, would like to obtain work either by the day or contract. Address BRUNO, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address E. C. MARSHALL, Cheneyville, La. 12-7-97

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address HUSTLER, 1100 Dante street, New Orleans, La. 12-8-97

WANTED—By a young lady of several years' ex-perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address XY Z, care PLANTER. 12-3-97

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address J. E. W. DAVIS, McCall, La. 12-4-97

WANTED—POSITION AS BOOK-KEEPER, manager of store or large farm, or any other position of trust on plantation, where strict honesty and reliability are appreciated. I am 30 years of age, married, of good education, and ready to enter position on or after January 1, 1898. Address CHAS. S. FRITSCH, Port Allen, La. 12-4-97

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address B, care of The Chief, Donaldsonville, La. 12-3-97

WANTED—A YOUNG LADY WISHES A POSI-tion as governess in a Catholic family; good references and moderate terms. Address MISS K, care this office. 11-12-97

WANTED—SITUATION ON SUGAR PLANTA-tion or saw-mill, as boarding-house keeper; long experience; can furnish best of references. Address COMPETENT, care LOUISIANA PLANTER, New Orleans, La. 11-17-97

WANTED—POSITION AS VACUUM PAN sugar maker; has had long experience, and can furnish evidence of competency. Address H. S. LEWIS, 602 Gravier street, City. 11-10-97

WANTED—A MAN WITH PERFECT AC-quaintance with the Spanish language, both in speaking and writing, and some knowledge in book-keeping, to take responsible office position on sugar estate in Mexico; must have unexceptional references and be willing to begin on a small salary; a good opportunity and first-class position to satisfactory person. Address, with age, nationality, and other details, B. F. JOHNSTON, 825 Warren avenue, Chicago, Ill. 11-10-97

WANTED—AN ASSISTANT ENGINEER ON sugar estate in Mexico; sober, industrious man of experience, with references, preferably with some knowledge of Spanish; a life position to the right man; salary small. Answer, stating age, nationality, married or single, salary desired per year, etc., to B. F. JOHNSTON, 825 Warren avenue, Chicago, Ill. 11-10-97

WANTED—A COMPETENT AND EXPERI-enced machinist and sugar plantation engineer wishes to engage by the year with good people at a small salary; references good; habits strictly sober; time to begin January 1, 1898, or to suit agreement. Address P. H. E., Engineer, 734 Dublin street, Carrollton, La. 11-7-97

WANTED—BY PARTY OF SEVERAL YEARS' experience in sugar manufacture and refining, a position in Louisiana or Mexico; have superintended work in both refineries and factories; can give testimonials from all former employers. Address H. S. R., Box 1336, New Orleans, La. 11-9-97

WANTED—TWO COMPETENT DOUBLE effect men. Apply 218 Canal street, city. 10-20-97

WANTED—POSITION AS STENOGRAPHER and typewriter, by a competent young lady; excellent references. Address STENOGRAPHER, care M. R. Powers, 704 Common street, New Orleans. 11-6-97

WANTED—BEET SUGAR ENGINEER, HAVING had large practice in designing beet sugar houses, and with experience in erecting and running, would like to connect with some new company or manufacturer of sugar machinery; best of references and satisfaction assured. Address SUITABLE, care LOUISIANA PLANTER. 11-3-97

WANTED—A POSITION AS CARPENTER AND millwright; understand putting up shafting and setting up machinery; twenty years' experience. Address GEORGE HINMAN, Franklin and Josephine streets, New Orleans, La. 11-1-97

WANTED—A POSITION AS A SUGAR MAKER; willing to do his own polarization; has had eighteen years' experience; can furnish reference. Address ALFRED ROUSSEAU, this office. 11-4-97

WANTED—A POSITION AS SUGAR DRIER; has had eighteen years' experience; can furnish good reference. Address M. MONTÉGUDO, 437 Enghien street, city. 30-10-97

WANTED—A POSITION AS SUGAR DRIER by a competent man, who can furnish good references. Address ALPHONSE CARRILLOUX, Detention Camp, Waggaman, La. 11-7-97

WANTED—BY A RELIABLE MAN OF EXPERI-ence, a position as sugar maker; well up in the management of central factories. Address SUGAR MAKER, No. 1716 Baronne street, New Orleans. 10-14-97

WANTED—YOUNG MAN OF 26, SOBER AND industrious, wants a position as assistant sugar boiler or chemist of some sugar factory or estate in Cuba, Hawaii or Mexico; have had fourteen years of practical experience in manufacture of sugar. Address SUGAR, Waggaman P. O., Jefferson Parish, La. 11-7-97

WANTED—A POSITION AS SUGAR WEIGHER or clerk or fireman; can fill any with competency. Address A. J. CASTIN, 1529 Mandeville street, city. 10-20-97

WANTED—A POSITION; A HANDY MAN ON a plantation; can furnish recommendation. Address WM. J. TONGLET, 413 Royal street, New Orleans, La. 11-8-97

WANTED—HOSTLER FOR MEDWAY PLAN-tation, Bayou Salé, St. Mary parish. Apply with reference to D. J. KER, North Bend Plantation, Foster P. O., La.

WANTED—A POSITION ON A PLANTATION as centrifugal man, by a first-class sugar drier. Address H. A. WHALEY, care of Wm. Johnson, 7000 Magazine street, New Orleans. 9-28-97

WANTED—A YOUNG FRENCHMAN, 24 years of age, desires a position in a sugar house or mechanical construction shops. Has had experience as mechanic in France and in the most important sugar houses in Cuba. Address M. N., this office. 10-22-97

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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AND

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Ascension Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.*

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5 inch.....	23 50	58 75	88 15	117 50
6 inch.....	28 00	70 00	105 00	140 00
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The Hawaiian Annexation Scheme.

The battle of the annexationists goes on fiercely in Washington, there seeming to be an immensely strong combination of people determined to force Hawaii upon this country, whether we want it or not, and whether the Hawaiians wish it or not. Even Secretary Wilson, of the Department of Agriculture, seems to have yielded to the blandishments of the Hawaiians and the public prints quote him as saying that the sugars that come to us from Hawaii would not appreciably interfere with those made in this country. Those of us who are more familiar with the sugar industry than the worthy secretary know that a very considerable interference has already occurred owing to the competition of Hawaiian sugars, and that there is every prospect that this will continue from year to year. Secretary Wilson's argument that sugar cane is being continuously planted in Hawaii, and that therefore the soil will become exhausted, requiring expensive fertilizers, is the old, old story, that applies to agriculture everywhere, and as much in the United States as anywhere else. To get the best results in Louisiana we are now compelled to fertilize quite largely, and it is absurd to hold that the cost of fertilization in Hawaii is going to interfere with the development of the sugar industry there.

The true limit of the sugar industry in Hawaii is the control of water. The arguments of the leading men of the arid and semi-arid regions of our own West teach us what vast possibilities lie in any country that has to depend on water for irrigation. The crops of our interior mountain States can be doubled, trebled or quadrupled with a reasonable increase in the present irrigation establishments. As Hawaii has already produced 250,000 tons of sugar within a single year, based upon its own official reports, and as it is only a question of water as to the great extension of the

sugar industry throughout the islands, we believe that we are safe in saying that the Hawaiian crop will be doubled or tripled within a few years if the present Hawaiian treaty should remain in force, permitting these semi-slave labor sugars to come in free of duty and in competition with our own free labor, American-grown beet and cane sugars. We can hardly conceive it as possible that the American people can be deceived by the statements of the annexationists so firmly made and with such slight foundation in fact. It is to be hoped that the better judgment of the American Congress and the American people will obtain and that the Hawaiian annexationists will be defeated.

Louisiana State Agricultural Society.

The programme for the twelfth annual session of the Louisiana State Agricultural Society, to be held at Crowley on January 26, 27 and 28, has been issued and gives a series of interesting features that promise to make it one of the most attractive meetings of this organization. The meeting will be called to order at 4:30 P. M., after the arrival of the train from the East, and an address of welcome will be delivered by his Honor Mayor P. J. Chappuis, of Crowley, with a response by the Rev. R. F. Patterson, of East Baton Rouge, which will be followed by the annual address of the president, Hon. John Dymond, of Plaquemines. Committees will then be appointed, after which a recess will be taken until the evening session, at which Col. Chas. Schuler, of De Soto, will discuss: *How to Make the Farm Profitable*. Mr. C. F. Taylor, of Raymond, La., will discuss the *Prospects for Farmers in Southwest Louisiana*, and Prof. H. A. Morgan, of the Louisiana State University, *The Chinch Bug, Its Ravages and Remedies*. A general discussion of each of these subjects is anticipated

after the main address in each instance shall have been delivered.

On Thursday, the 27th, the morning session opens with an address by Col. F. L. Maxwell, on *What Should be the Agricultural Policy of the Louisiana Cotton Planter with 5-Cent Cotton in View?* This will be followed by Judge Emile Rost, of St. Charles parish, on *The Sugar Industry of Louisiana*, especially with a reference to its extension to the prairies. The morning session will be concluded with the paper on the *Progress and Development of the Rice Industry in Southwest Louisiana*, by Mr. C. L. Crippen, of Acadia parish.

The afternoon session will open at 2 P. M. with an address on *Immigration*, by Mr. A. V. Eastman, of Lake Charles. Mr. W. D. St. Clair, of Tangipahoa parish, will address the society on *Health, Happiness and Prosperity in Louisiana*. Major J. G. Lee, Commissioner of Agriculture and Immigration, will follow with an address on *Farmers Institutes*, and Col. W. W. Duson, of Crowley, will discuss *Drainage for Profit and Health in Southwest Louisiana*.

The evening session will begin with an essay on *Fruit Growing in Southwest Louisiana*, by that distinguished horticulturist, Mr. T. Jay Lacy, of St. Landry. This will be followed by an address on the *Needs of Southern Agriculture*, by Capt. John A. Redhead, of Centerville, Miss., whom we have learned to consider as one of us in Louisiana. Mr. Ben Avant, of Lafayette parish, will then take up *Tree Culture in Southwest Louisiana*, and the evening session will close with a paper on *Red Rice*, by Prof. W. R. Dodson, botanist of the State University.

The third day, Friday, will be given over to the Louisiana Stock Breeders' Association, and will open at 10 A. M., with the president's address, by Major W. L. Foster, of Shreveport. Mr. S. Q. Hollingsworth, of Red River parish, will follow with an address on the *Value of Pure Bred Live Stock, Their Care and Management*. Prof. S. A. Knapp, of Lake Charles, will then discuss *The Hog and Cattle Raising Possibilities of Southwest Louisiana*, and Mr. W. B. Mercier, of Centerville, Miss., will discuss *Beef Raising and Fattening, a Valuable Industry on the Louisiana Farm*. The morning session will close with a paper on *Texas, or Southern Cattle Fever*, by Dr.

W. H. Dalrymple, Veterinarian of the State University.

At the afternoon session the subject presented for discussion is *Can Louisiana Supply Home Demands for Meat, Dairy Products and Food Stuffs?* Mr. W. S. May, of Ruston, La., is expected to open with an address on this subject, and then a general discussion will follow: After this routine business will be transacted, officers elected to serve during the coming year, and at the evening session there will be an experience meeting with the discussion of questions from the question-box.

As we have stated to our readers before, in these columns arrangements have been made for reduced rates of transportation based upon the certificate plan, it being necessary that certificates should be obtained indicating full fare paid going to Crowley, which, when endorsed in Crowley by the secretary, will enable the holders to get return tickets at one-third fare. Every friend of Louisiana agriculture is invited to attend.

Profits Made on Sugar Under the Present System of Distribution.

[Special Correspondence.]

Editor Louisiana Planter: The following calculations will no doubt be of interest to those who are trying to solve the sugar problem:

Raw sugar, centrifugals 96 test, now sells at $4\frac{1}{4}$ cents per pound (see market reports); add to this the net cost of refining, safely estimated at not more than $\frac{1}{4}$ (the new tariff names $\frac{1}{8}$), and we have $4\frac{1}{2}$ cents as the actual cost of refined granulated, being retailed generally throughout at 6 cents per pound, a difference over cost of $1\frac{1}{2}$ cents, to be divided up among the refiners and wholesale and retail trade.

The population of the United States is about 75,000,000 souls, which, multiplied by 70 pounds, the annual per capita consumption, makes 5,250,000,000 pounds; at $1\frac{1}{2}$ cents per pound, it in the aggregate amounts to \$78,750,000, total profits of the dealers aforesaid, on sugar consumed annually, or dividing this sum by 3 it makes \$26,350,000 to each of said interests.

In order to ascertain the cost to any given locality for instance within a territory that is sufficient to consume the output of one beet sugar factory, estimated at 10,000,000 pounds, we have 142,855 people multiplied by 70 pounds, and by $1\frac{1}{2}$ cents per pound making \$149,997.75, or substantially a \$150,000 tax within every such radius.

In estimating profits of shareholders in beet sugar plants the calculations are made on the basis of $4\frac{1}{2}$ cents per pound for the sugar, a saving to local consumers of almost the entire

amount stated, which saving for the territory of one factory would pay for such plant in three or four years, and for the United States annually it would build and equip 157 plants costing \$500,000 each, and in $3\frac{1}{2}$ years there would be a saving sufficient to build 549 factories, the full requirements to produce our own sugar. Let us then, by all means, have the local factories well distributed.

January 15, 1898.

G. G. SMITH.

Our correspondent forgets that granulated sugar is pure sugar 100 test; that 96 test means but 96 pounds of pure sugar in the 100 pounds raw sugar to be refined; that all of this can not be secured by any known process; that the government admits that it requires 107 pounds of this sugar to produce 100 pounds of granulated. These facts derange Mr. Smith's calculations all the way through.

The sugar business is so enormous the costs of distribution must necessarily be enormous. So it is with flour, cheese, bar iron or nails. The community lives on the manufacture, sale, resale, transportation, insurance, etc., of our great staples. Still the sugar industry is the one that now presents to us the grandest possibilities in the direction of great and profitable development.

Crystallizing Low Grade Sugars.

The introduction by Messrs. Oxnard & Sprague, at their Adeline plantation, of revolving cylinders for crystallizing low grade sugars in motion; the discussion of the subject matter before the Sugar Planters' Association last week, of which we give a stenographic report in this issue, and the generally accepted conclusion in Louisiana that the plan of crystallizing low grade sugars in wagons is the best, are now all under careful study by the sugar planters of our State. One planter writes to us that he takes no stock whatever in revolving crystallizers, and asserts that they will create nothing but smear. Most, and in fact practically all of our first-class establishments, have now complete outfits for crystallizing at rest, thousands of sugar wagons of the latest make being utilized for this purpose. It may be that just as we have had radical improvements in other branches of our sugar machinery, we shall find that crystallizing low grade sugars in motion will supersede crystallizing them at rest. It, however, will take some time to con-

vince the cane sugar producers of Louisiana and of the tropics of the expediency of adopting this plan.

While crystallizing low grade sugars in motion has for a long time been made a success in the production of beet sugars, it is a well known fact that beet sugars are comparatively free from glucose and from much of the gummy matter that we find in our cane sugars under the head of solids not sugar. While it is desirable to forward every new invention; to carefully consider every new method of manufacture and to aid in the exploitation of all new ideas, at the same time it will not do to engage in reckless expenditure in any direction that may still be considered as experimental, and as applied to cane sugars crystallization in motion seems thus far to be experimental. So far as applied to beet sugars we have understood that an increased yield was claimed, but in the discussion of the process had before the Louisiana Sugar Planters' Association, we find that the chief advantage claimed is that of economy in labor, no great gain in yield having been noticed.

We do not desire to utter one word against the plan of crystallizing low-grade sugars in motion, and on the contrary believe that the method should be thoroughly exploited, and we should hope that it might be made a success. So far as we can judge from the report of the chemist of the Adeline refinery, it would seem that Messrs. Oxnard & Sprague now consider the plan a success in their house. On the other hand, we find scores of our planters displaying their confidence in the older method and increasing their investments in wagons and tanks for crystallizing at rest. We think the whole subject matter worthy of careful study, and should be glad if Dr. Stubbs could make it convenient to determine along scientific lines the results in yields by experiments at the Sugar Experiment Station.

We know that Dr. Stubbs has been investigating the machinery for a year or two back, but its comparatively high price and the urgent need for investigation of the sugar industry in other directions have thus far deterred him from covering fully the points that we have named. Perhaps another year may enable him to give us full data.

Crystallization in Motion.

Mr. C. Robert Churchill, who takes a great interest in all new processes, and whose information on all subjects is encyclopedic, furnishes the following index of pages in THE PLANTER where articles of the above caption may be found for the benefit of those who are interested in crystallization of low products in motion:

Volume IX, pages 39 and 130.
Volume X, page 219.
Volume XVI, pages 58 and 102.
Volume XVII, page 297.
Volume XVIII, page 267.

Sugar Cane.

Dr. Wm. C. Stubbs, director of the Louisiana Sugar Experiment Station, Audubon Park, New Orleans, has just issued volume 1 of Sugar Cane, a book treating of the history, botany, and agriculture of the sugar cane, a copy of which will be sent, post free, to every sugar planter, manager, overseer or small cultivator of cane in Louisiana who may address him as above. He is anxious to place this book in the hands of every worker in cane in the State of Louisiana, and therefore will be glad of the address of all concerned.

Commercial Agreements and Reciprocity Treaties.

The reference in the President's message to the execution of the reciprocity clauses of the new tariff bill was not as explicit as might be desired. These clauses cover two more or less distinct kinds of agreements. The first can become operative whenever the President is satisfied that the concessions received from a foreign country in favor of the products or manufactures of the United States are equivalent to the concessions offered on our side; the second require the consent of the Senate, and are governed by the same rules as any other kind of international treaty. In Sec. 3 of the tariff bill the articles of import on which a reduction of duty may be made in return for a similar reduction by a foreign country in the duties imposed on American products, or on which a duty may be imposed in the absence of the reduction asked for, are specifically enumerated. They come under two groups, one being the products of wine and spirit producing countries, and the other such products as coffee, tea and tonca and vanilla beans. In both cases the reduction of duty to be offered or the duty to be waived, as a concession to secure some corresponding advantage, is distinctly stated; as for example, there is a reduction on the champagne duty from eight to six dollars per dozen, and on still wines from forty or fifty to thirty-five cents per gallon. In the case of the tropical products, the President has power to impose a retaliatory duty

on articles now admitted free, by way of compelling a modification of the duties on our own products which we may deem to be unreasonable. In Sec. 4 of the act, the basis for the negotiation of commercial treaties is declared to be a reduction for a specified period of not more than 20 per cent. of the duties upon such merchandise as may be designated by the country with which the treaty is made.

The statement of the message in regard to the progress of negotiations under both sections simply is that they are now proceeding with several governments, both European and American. This is supplemented by the declaration that it is believed that by a careful exercise of the powers conferred by the act "some grievances of our own and of other countries in our mutual trade relations may be either removed or largely alleviated, and that the volume of our commercial exchanges may be enlarged, with advantage to both contracting parties." The entire question is one obviously beset by many difficulties. The commercial agreement which is in course of negotiation with France is a comparatively simple matter. Here the United States demands a certain relaxation both of duty and of the rules affecting the admission of American provisions, vegetable oils and live animals. It should not be difficult to convince the French government that their people have everything to gain by facilitating the import of French wines into this country, and very little to lose by being allowed to buy fresh and salted meat imported from the United States more cheaply and freely than at present. To make the concessions on one side balance those granted on the other is a comparatively simple matter, and is a task confined within a strictly limited range. But if, as appears probable, the negotiation of a general reciprocity treaty with France, as well as a commercial agreement, is in progress, a very wide field of discussion is opened up. This is more emphatically true because of the fact that the negotiations with France are intended to open the way, if they have not already done so, to similar negotiations with Germany.

While France and Germany are valuable customers of the United States, they occupy a very subordinate position when compared with Great Britain and her colonies and dependencies. The United Kingdom alone took 46 per cent. of all our exports for the last fiscal year, while the colonial proportion was over 11 per cent. In other words, over 57 per cent. of the exports of the United States were purchased on British accounts last year. Against this, the entire purchases of France, Germany, Holland and Belgium accounted for only 25.4 per cent. Now, while there is a basis for entering into reciprocity treaties with these latter countries, because of the duties they levy on our imports, there is virtually none for making any similar arrangement with the United Kingdom. The practical result of the negotiations now in progress may, therefore, be found to be a preference in favor of the admission of the manufactures of France and Germany and a discrimination against those of Great Britain. Questions of fairness apart, it is not easy to see that it would be for the in-

terest of this country to place itself in the position of discriminating against the products of its best customer. There is a party in Great Britain, more noisy than influential, which clamors for the imposition of duties on both agricultural and manufacturing imports from foreign countries. It would unquestionably be the surest way to lend greater strength to this demand if it should be shown that the contraction of the British free list might be made a weapon to enlarge the foreign market for British goods, and that the liberality of this free list was operating as an obstacle to the competition of the British manufacturer with the German or the Frenchman.

If the negotiation of reciprocity treaties with European countries is likely to lead to some embarrassing complications, the basis on which the South American agreements or treaties are to be negotiated promises to be still provocative of trouble. The somewhat novel weapon put in the hands of the president to compel Brazil, for example, to moderate its duties on imports from the United States, is the threat to impose a duty of 3 cents a pound on coffee imported from that country. As a revenue measure this would have much to commend it, but as a means of compelling certain concessions from a country presumably unwilling to grant them it leaves much to desire. As a matter of fact, the prospect of making any headway in South America, either under the commercial agreement or the reciprocity section, seems to be very slight. So long as most of the Spanish-American republics retain the most favored nation clause in their treaties, we shall hardly obtain any advantage which the European countries trading with them do not share, the threat to put a tax on their coffee and other beans to the contrary notwithstanding.—*N. Y. Journal Commerce.*

Personal.

Messrs. J. P. Gueno and George J. Gueno, of Houma, La., came up to the city last Sunday and registered at the Grunewald.

Mr. S. Morris Lillie, inventor of the now celebrated "Lillie" multiple effects, which are said to do everything but talk, left for the North on Monday night, after some time spent in this vicinity on business.

Mr. Charles Hagelsweide, of St. Louis, a veteran sugar boiler, took off the crop this year on the Union plantation of Hon. Andrew H. Gay. Mr. Hagelsweide has officiated at the pan many seasons in Louisiana, and always with credit to himself and profit to his employers. Mr. D. H. Walsh managed Union with his usual consummate skill and success.

Mr. J. M. Callouet, of Houma, La., was in the city on a visit a few days ago and registered at the Hotel Royal.

Mr. Tony Sobral was at the Grunewald Hotel last Wednesday. Mr. Sobral is prominently identified with the sugar planting industry of St. James parish and was accompanied by Mr. Fred. Sobral.

Mr. W. J. Thompson, of Calumet, and Mr. E. S. Barnett, of Shadyside, were guests of the St. Charles Hotel on Thursday.

Mr. R. Perez, of the Lower Coast, was a recent guest of the Royal.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: The grinding season is well over in Ascension, Belle Helene having brought up the rear of the procession on or about the 9th inst., and, taken by and large, the results of the campaign have been quite satisfactory. Of course it would be too much to expect that all things should come the planters' way, and in the matter of average tonnage per acre the figures will no doubt be below the usual standard when footed up, but in other particulars this shortage has been, as a general thing, more than compensated for. Hon. Wm. Porcher Miles and his son, Dr. W. P. Miles, with whom your correspondent recently enjoyed the honor of an interview, properly described the conditions prevalent in this parish and section, with regard to the cane crop and its manipulation, by saying that the cane had been unusually straight, soft and rich in saccharine matter, thus facilitating the work of grinding it with a minimum of mill mishaps and rendering the yield of sugar per ton considerably in excess of the customary average. The mills at Houmas central factory crushed an average of 1000 tons of cane per day for the entire season, and on several occasions the total ran up to 1100 tons and over, and not an accident worth mentioning occurred from opening to close of the campaign. The yield of sugar per ton of cane was between 170 and 175 pounds, and General Miles, who is not at all secretive in these matters as is the case with many planters, expresses his satisfaction freely, and candidly acknowledges that the financial result of the season's operations shows a balance on the right side of the Miles Company's books—not a large balance, it is true, but still a balance; and any is certainly better than none in this particular.

No figures have yet been given out from Belle Helene, but common report places the output of the factory at 2,500,000 pounds in round figures.

The mild, spring-like weather of the new year has given a great impetus to the work of early planting, and this was in full blast on every hand until interrupted by the wet spell that now prevails. Premonitions of a termination of the spell in a freeze have been unrealized up to this writing, and at 9 o'clock to-night (Wednesday) the mercury stands at 59 deg. above zero, with the signs of clearing weather abundant in the heavens. All reports so far heard relative to the condition of the seed have been of the most encouraging character, and the competent judges agree that if the conditions are favorable throughout the year the sugar crop of 1898 will be a whopper.

Among the last places in the State to finish the work of the harvest season were Mr. Leon Godchaux' Reserve in St. John parish, and Elm Hall in Assumption, which have wound up within the past week. The sugar output of Reserve is said to have been about 12,500,000 pounds, and that of Elm Hall about 12,000,000 pounds. If these estimates are correct the total product of Mr. Godchaux' three big factories has been 35,900,000 pounds, divided

thus: Reserve, 12,500,000; Elm Hall, 12,000,000, and Raceland, 11,400,000. Thus this gentleman easily holds his well-established position of the "Louisiana Sugar King."

The Home factory of the Jos. H. Meeker estate, near Lecompte, Rapides parish, closed its season's operations on the 10th inst., with a sugar product of something over 6,000,000 pounds. At the adjacent Chetwood factory, which is leased by the Meeker estate, the product was about 2,800,000 pounds, making the aggregate of the two factories about 9,000,000 pounds, a fine result considering the tonnage of cane ground, but less than was looked for owing to the short tonnage. At both factories the work of the harvest period proceeded with great smoothness and freedom from accident, a gratifying fact attributable in no small degree to the more than ordinary skill and competency of the crews in control of the large establishments, a majority of whom hail from Ascension. The weight of cane ground at Home factory was 35,061 tons, hence the average yield of sugar per ton of cane was a fraction in excess of 171 pounds.

The claim is made that the largest average weight of cane per acre for the season just passed was grown on the Fairview plantation, in St. Charles parish, owned by Mr. H. G. Morgan, and managed for the past four years by Mr. E. C. Christiansen, formerly of Ascension. The plant cane cut from the Fairview fields averaged 37½ tons, and the stubble 28½ tons, and from 8000 tons a sugar product of a little over 1,500,000 pounds was realized, making the exceedingly fine average of more than 187 pounds per ton of cane. It is said that doubters may verify these figures by applying to Mr. Morgan, and it is pretty safe to assume that they can not be rivaled elsewhere in the Louisiana sugar district. Grinding was finished at Fairview New Year's eve.

Messrs. Binnings & Maurin wound up the campaign at their Hope factory, near Jeanerette, on the 11th inst., with an output of about 3,000,000 pounds, which is very good for the weight of cane handled. Mr. August Dugas, of Donaldsonville, has been the competent sugar boiler at Hope during the past four seasons.

Messrs. H. T. Ayraud and Hubert Treille, Jr., engineer and assistant respectively at Messrs. P. F. Bourgeois & Sons' Stonewall factory, Pointe Coupee parish, returned to their homes in this parish last week, having wound up their work for the season on the 9th inst. The output at Stonewall was 800,000 pounds of fine quality open kettle sugar.

The adjacent St. Maurice factory, owned by Messrs. Bourgeois & Stonaker, got through on New Year's day, and made a total of about 650,000 pounds of open kettle sweetness. Mr. J. C. Judice, another well-known young Ascensionite, was the sugar boiler at St. Maurice.

The large Gramercy central factory, in St. James, closed down a few days ago with an output of about 11,000,000 pounds of sugar. The supply of cane obtained was entirely inadequate to the capacity of the establishment, and much better results are being figured on for the next grinding.

Enumeration of the managerial changes

spoken of in last week's letter must be again deferred, owing to the length to which this record has been drawn out. ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has not been so favorable during the past week as planters would wish, for prospects look so good for the coming season everybody is eager and anxious to be at work. Some cane was planted, but the rains have suspended this work for the present. The rainfall for the 18th and 19th exceeded three inches at Plaquemine. The seed cane is reported to be good and is going a good ways, and if the cane can be planted early in the season there will be a perceptible increase in the acreage over last year.

We have noticed with regret that the planters in general take less interest than they should in the meetings of the Louisiana Planters' Association, and that Iberville perhaps takes less interest than any of her neighbors. One brilliant exception is Mr. Leonce M. Soniat, of Dorceyville, and his remarkable success as a planter and manufacturer may be held up as an example for all to follow. In union there is strength. Let the planters unite, for if they do not, many things of advantage to them will pass by unobserved, and measures to their cost and disadvantage inaugurated. The differential question should be brought before this body and its absurdity as well as the injury it would work to the planters fully illustrated.

In addition to the purchase of the Dunboyne plantation, Mr. Alonzo Landry has leased the Palo Alto plantation, on the upper side, from the Carrol Real Estate Company, with the privilege of purchasing it. Palo Alto has an area of about 1200 acres, and annexed to Dunboyne makes one of the finest places in the parish. Mr. E. D. Leche is having the Dunboyne residence repaired, and when completed will move his family there. The quarters at Dunboyne, too, are undergoing repairs, to the delight of numerous mechanics.

Mr. William B. Robertson, of Plaquemine, is one who believes in doing all things at the proper time, and is the first of our planters to finish planting. He put in twenty acres more of cane this year than last. Mr. James M. Robertson, brother and neighbor of Mr. W. B. Robertson, reports the seed cane good.

Mr. Charles Tircuit, of St. James, has been installed as manager at Myrtle Grove, and moved up last week with his family.

Mr. W. F. Denny, of Bayou Goula, formerly manager of the Augusta plantation of the Geo. M. Murrell P. and M. Company, Limited, has resigned his position and will work a part of Augusta as tenant. The tenants throughout the parish made a great deal more money than the managers last year and we doubt if they worked any harder.

Mr. John T. Guyton, of Bayou Goula, will put in a much larger crop this year on Mrs. J. A. Collins' little plantation.

Mr. Simon LeBlanc, of St. Gabriel, has rented Evergreen plantation from Mrs. Mary Gueymard and will put it in rice. Mr. LeBlanc will also cultivate the Virginia place in rice and his own place, Monticello, in cane.

Mr. Michael Schlater will, if he can find a purchaser, sell his Enterprise plantation on Bayou Jacob.

Mr. Fayette Sharon, son of Mr. George Sharon, and Miss Rosa Marionneaux, daughter of Mr. C. Valiere Marionneaux, of Bayou Plaquemine, were married last Wednesday.

IBERVILLE.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Thus far the new year has not been very propitious for those who are engaged in planting, as the weather has been such that but little has been accomplished in the fields, although until the recent heavy rain the precipitations had been scant in quantity. Some little ploughing has been done; but the land in the majority of instances contained too much moisture to enable the plow to do good work. Although fully cognizant of the fact that to plough when the soil is not in condition is detrimental, yet the desire to hasten field operations results in its being done by many who live to regret it later in the season.

The weather has been such that the fall plantings are again marking the rows—also the stubble—and from reports the seed cane is sprouting in the windrows; particularly where laid down somewhat early. The eyes are more elongated on black than sandy soils—the former absorb more heat, and in consequence are warmer and tend to hasten germination.

The total output for the past campaign is another proof that comparatively dry seasons are better for the tropical cane in this latitude than when the precipitations are frequent and copious, particularly in May or June.

Only on one place has planting commenced, that of Mr. Levi—the Island of Cuba plantation—it being the first to end the grinding last season.

Even if there is not another stalk of cane planted during this month there will be ample time to accomplish the work even if the planters take the precaution of making haste slowly and doing the work well. One of the best crops ever made in this parish was in 1868, when the weather was so wet that planting did not begin in earnest until after the middle of February. In fact, the very best time to plant cane here is between the tenth and twenty-fifth of that month, for then the soil begins to get warm and the mother canes root at once and the eyes germinate with vigor.

"Handling Cane at the Carrier," the subject to be discussed at the next meeting of the Louisiana Sugar Planters' Association, is a very important one, and it is to be hoped much light will be thrown thereon. To lessen the cost of putting the canes on the carrier is essential, yet not at the sacrifice of regularity, without which pounds of sugar per ton of cane will be lost, even with compound crushing. The speed of the carrier may play an important part, as it may be found better to have it travel, say, seventy feet per minute than at the rate of the mill rolls.

Wednesday of last week was cloudy in the morning and showery in the afternoon; Thursday, misty; Friday, light showers; Sat-

urday, clouds and sunshine; Sunday, clear and cool; Monday, cloudy and cool; Tuesday, a very boisterous day, with showers at intervals, and Wednesday morning threatening.

The official weekly report furnished through the courtesy of Mr. J. T. Moore, Jr., is as follows:

	Temperature.	Rainfall.	Sunshine.
January	10.79.0	60.0	.10
"	11.74.0	68.0	.06
"	12.83.0	66.0	.03
"	13.77.0	58.0	.45
"	14.69.0	57.0	.25
"	15.78.0	43.0	.09
"	16.56.0	42.0	.04
	73.0	56.0	1.02

TERREBONNE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: The past few weeks has been the worst so far experienced this January. Early Tuesday morning a rain set in, finally turning into a howling southeast gale, which continued until Wednesday evening, when the wind gradually shifted around to the northwest, bringing clearing weather. This (Thursday) morning is bright and beautifully clear, but so much rain has fallen during the week that it will be difficult, if not impossible, to accomplish any field work until next week. January set in very nicely, and during the first week considerable cane was planted, but the work so auspiciously begun has been seriously interrupted by the more or less unfavorable weather. There is, however, one feature of the situation that is extremely gratifying. It is the fact that up to date the seed cane and stubble are in good condition, no cold sufficiently severe to injure either having yet been experienced. Of course it is decidedly too early to boast of our good fortune in this respect, because any number of things could happen during the next three months to seriously injure both plant and stubble; but still there is some satisfaction in reporting that so far "all is well." It is quite safe to say that there will be no decrease in the cane acreage of the parish this year. On the contrary, there will, if anything, be an increase over last years' figures.

Smithfield finished grinding a few days ago, after a long and successful run. There has, so it is understood, been a change in the direct management of this place. Mr. J. N. Edwards, the former manager, will take charge of one of the Milliken plantations on the lower coast, being succeeded at Smithfield by a Mr. Norman.

The big Cinclare factory ground its last cane Thursday, having had a successful season, all things considered. This factory is already contracting for cane for the current year, on the basis of 80 cents per cent, as heretofore. The largest contract thus far made is with Fred. D. Robertson, near Plaquemine, for 15,000 tons. Additional improvements will be made at Cinclare this year, including another vacuum pan.

Mr. Jas. H. Merrill, who has for several years cultivated the Pipes plantation near

Westover, has purchased the Key place on Grosse Tete.

Owing to the low price of the staple a great deal of cotton remains in the fields in
WEST BATON ROUGE.

St. Mary.

Cane planting has already commenced in many places, and the seed is exceptionally fine. Many hundreds of acres were planted in the fall, and that part of the work which was left over for sugar making is now being carried forward. The increase in acreage will be about 25 per cent., and conditions so far in general are more favorable than for many years past. With no adverse circumstances, St. Mary will increase her lead as being the banner sugar parish in the State.—*Franklin News.*

Vermillion.

[Special Correspondence.]

Editor Louisiana Planter: The latter part of last week brought us good, cool, clear weather, and it even did more than that. It completely knocked out the superstitious theory that when the breast of a goose turns white during the winter that all cold weather is over, for one of our bachelor friends invited us to a dinner where goose was served for the sixteenth course, and nicer, whiter meat I never saw carved from the front of any goose, but it was nary a time a sign that we would have no more cold weather, for the next day the thermometer registered 30 deg., and ice was in evidence on every hand. This beautiful, bracing weather was destined to be short-lived, for to-day shows the thermometer registering 65 deg., and the rain pouring down in torrents. All farm work is stopped and will be at a standstill for several days to come.

Your correspondent drove out to the Gueydan country in the western part of Vermillion, last Thursday afternoon, and shared the kind hospitalities of "Uncle Dick" Garland, of the Garland Ranch, Thursday night. Mr. Garland is one of the best posted and most wide-awake rice planters of the parish, and the relating of his early experiences in the rice culture in Vermillion, the advancement up to and including the present, and the prospect for the future are certainly very interesting. When he came to West Vermillion it was a wild, barren country with a cabin probably every ten miles, and the few inhabitants that raised rice planted only small patches for home use, and cleaned it with a mortar and pestle. Now in the same section there was planted last year in the neighborhood of 30,000 acres of rice that is irrigated by artificial irrigation, employing over 50 pumping plants to furnish the necessary water; the largest of these, notably, is the Gueydan plant, that has a capacity of flooding 15,000 acres, and still this is not large enough, for now this company is arranging to extend their mammoth irrigating canal a distance of ten miles further west, where they propose to tap the Bayou Queue de Tortue and put in another powerful pumping station. They will then extend east a distance of four miles from their present terminus to the east line of the Gueydan pasture,

When this is complete they will have a total of about twenty-five miles of canal and a capacity of irrigating 30,000 acres of rice. The extensive preparations that are already being made in that country for the next crop is an evidence that those people never let the grass grow under their feet. But we must not forget to mention the improvements, real and in prospect, in the eastern part of the parish, or near Abbeville. Messrs. Wise & Lyons are extending their canal back several miles further into the interior, and a Northern company, the name of which we are not permitted to reveal just yet, is figuring on a canal from Vermillion river west for a distance of ten miles. This company proposes to invest \$50,000 in an irrigating canal, and if put in from the Vermillion west will pass through the finest rice country in the State and will have an unfailing supply of water. Hall & Slutz are now at work putting in their huge canal on Little Bayou, twelve miles south of Abbeville. Their manager passed through Abbeville a few days ago with a force of hands and fifty head of mules and horses to put on the canal.

The very unfavorable weather has brought cane planting to a dead standstill, but the seed is preserved splendidly and planting will be resumed as soon as the weather will permit.

Mr. Isaac Wise, a large property owner of this parish, left here last Sunday morning for Europe. He will go direct to Nice, France, and will have his headquarters at the Hotel Beaurivage.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: In regard to the weather it is not in every respect as fair and pleasant as the more industrious and pushing planters would prefer to have it at this time.

Not one, but all, seem to be anxious to get plows started to work as early as possible, preparatory to the busy cane planting season. We had considerable rain during the latter part of the past week, which, for the present, precludes the possibility of field work until the warm sun's rays shall have so dried the soil that it may be in proper condition for the plowman.

Mr. C. F. Knoll, having advanced his field preparations during December and the first week of this month, was able to commence on the first days of the past week to plant cane, succeeding well until the rain coming on forced the abandonment of further attempts at cane planting.

I understand that the seed cane, when taken up to plant, was found to be as sound as a gold dollar—better could not be wished for.

Col. E. H. Lombard, representing the Citizens Bank, New Orleans, recently visited the Keary plantation (the bank's property), which has not for some years past yielded much, if any, revenue. After surveying the situation Colonel Lombard decided to have the place fenced in and put in cultivation. Three new houses will be built on the newly fenced land, and two old ones repaired for the reception of tenants.

Mr. William Cansey, Bunkie Post Office, has in hand the improvements for Mr. Lombard,

and will push the work in hand to an early completion. Mr. Cansey has a nice farm adjoining. Now plants corn and cotton, but would prefer to go into cane planting were he so situated as to get his cane when grown to market.

The old Keary place, as it is now termed by the inhabitants of the country, stood in the front ranks in ante-bellum days along with the many big sugar producing plantations situated in Avoyelles parish, on Bayou Boeuf.

It may seem strange to relate, but thirty-eight years ago found situated on Bayou Boeuf and in Avoyelles no less than eight sugar houses in operation, of which but one is left to-day. How wonderful the change which has taken place. The same broad fertile acres are here the same that they were in the past, but the vicissitudes of time have changed many old landmarks as well as older usages about which the present seems but little concerned. The object in bringing forward at this time these reminiscences is to call attention to the possibilities of the country for the profitable production of cane, the resources of an inexhaustible soil, water and timber, fitted as it were by nature for the profitable construction and operation of central sugar factories, of which this section of country now stands sorely in need.

While I am not positive, still I am under the impression that Mr. A. D. Havard, Bunkie P. O., now the proprietor of the Boonville plantation, will increase his acreage to cane this year much above that of what it has been during the past two years.

Mr. M. Bubenzner, Bunkie P. O., will continue to improve his pretty place during the year, and enrich his lands, draining and increasing the number of his acres to cane.

THE PLANTER'S scribe has been informed that Mr. R. L. Foster, of the firm of J. C. Payne & Co., New Orleans, has rented the Ewell plantation to an enterprising cane planter living near Evergreen, with the object in view, if I mistake not, of planting and increasing the acreage on the place to cane.

THE PLANTER'S scribe learns from a reliable source that the Home Place sugar factory, Rapides, terminated the season some days past, with most gratifying results.

With the advent of good weather, ploughing, and planting cane will become the order of the day.

ERIN.

St. James.

[Special Correspondence.]

Editor Louisiana Planter: The new year has given us as many samples of winter weather in this latitude as it could well crowd into the eighteen days that have come and gone since its inception. We have had it wet and cold, dry and warm, wet and mild, clear and cool, and even stormy. This expresses the phases of the elements since our last week's report in brief. It is now Wednesday noon; since this morning great gusts of wind, and at short intervals a little deluge of rain, is the order of the day. These acquainted with weather signs predict a cold wave which will probably result in a general freeze-out. Well,

[CONTINUED ON PAGE 65.]

FOREIGN LETTERS.

Berlin.

BERLIN, January 2, 1898.

Editor Louisiana Planter: The week under review opened with the old moist and sluggish weather, but on the second Christmas holiday (an institution unknown in America, I believe) a very decided change has taken place and clear and bracing weather set in. There was, on Tuesday, it is true, another change, and it looked very much like thawing with the usual dampness and mud combined ahead, but fortunately these apprehensions have not been realized, and the latter days exhibited quite a seasonable, that is, winter-like character, so that, at last, the meteorological conditions became such as were desired by the sugar fabricants laboring since over a month's time under the most adverse circumstances. Better late than never, we might say, but it is almost too late, for the bulk of the factories have done working, and most of them complain of more or less important losses in the yield. Somewhat variable but predominantly cold weather has also prevailed in the other beet countries of Europe, where, by the way, the campaign is practically finished. There will be hardly any material change in the estimates previously stated in these letters, and the interest is now gradually turning over to the area to be sown next year, some contracts for beets of next campaign being already concluded. The general opinion is that no material increase will take place on account of the prices of cereals being a good deal higher than last year.

But this view may change in a measure, if the sugar prices should experience a further rise prior to the sowings in the spring. But beet and cane growers should bear in mind that the prospects which are in the way to slowly improve would be made to turn again to the wrong side if sowings and plantings are affected without due regard to the real requirements of the trade and of consumption. As we are on the threshold of a new year it may be of some use and interest to examine briefly the present situation and draw some conclusions with regard to the course of the market in the future. There are several points in favor of the latter, especially as compared with last year. First of all the beet crop of the current campaign, partly in consequence of smaller sowings in several countries, will be smaller than last year's, which exceeded its predecessor by no less than 520,000 tons. The consumption has in some countries greatly increased. In Germany and Austria this is, quite apart from other circumstances, the case because of the change of legislation, which caused the dealers to fill their stocks in advance, so that in 1896-97 the demand was correspondingly less. This year, however, the consumption is much larger, and this not only for the reason just mentioned, but also on account of a material improvement in the economical condition of the people, which on the other hand is conducive to a large increase of population, with regard to which I might add, that in 1896

the surplus of births over the deaths amounted in Germany to 815,000, and from the development industrial and commercial matters have taken in 1897, a still greater difference can be fairly expected. Another point of importance is the rise of the prices of cereals, which I have touched on already above, and which leads to the belief that the sowings will keep within reasonable bounds, and with no exaggerated increase of the production we may be sure to reach at last more manageable stocks than we have had for a long time. A somewhat uncertain factor this year is the Cuba crop, the estimates of which are already a little higher than last year. But notwithstanding the recent inauguration of an almost independent government the re-establishing of peace and order does not seem to be sufficiently advanced to vouchsafe a speedy recuperation of the much afflicted island. As to our own country a little shade is in the picture, inasmuch as America will surely not buy on this side as much as last year, but it is well known that the tariff purchases of last year, though freeing Europe of a large part of her surplus stocks, have weighed on the markets of the world nevertheless, and if really America this year will be only a small buyer in Europe, there will be at least no overstocks over there keeping business in a languishing condition, and seeing that prices have risen already from their lowest point of 8s. 2½d. at London to 9s. 6¾d., the present quotation, it will be admitted that the basis for a gradual improvement is given, provided producers and owners either by growing or by offering injudiciously, do not destroy the fair prospects now ahead.

As a fact effectually strengthening the present position can be also considered the last (November) importation into England. Expressed in raw value it amounted to 169,467 tons, as against 117,787 tons, which means an increase of upward of 50,000 tons. English trade has kept for a long time aloof, but now it seems to have been forced to fill the gaps of the stocks in the hands of dealers. General stocks, however, remain small, and, therefore, it may be with some amount of certainty surmised that England must continue buying on a larger scale. Unfortunately in the former months importation left sometimes much to be desired, and, therefore, it must be feared that the deficit, which is now about 70,000 tons, will not be wholly covered.

The markets have been in the week after the holidays as buoyant as in the previous period, a fact which causes great astonishment all around, as at this time business generally is in a lifeless condition. At the close the tendency has become a little quieter, but the under current continues strong, and no material drop of prices is thought probable, although some fluctuations may occur—without which, by the way, the market would be of little interest. Sellers, of course, would want only fluctuations in a rising direction. Prices close at Magdeburg for actual 88 per cent. sugar at 10.30 marks to 10.45 marks, and at Hamburg at 9.52 marks f. o. b. for delivery December. Refined are quiet, but 25 pfennigs higher.

ROBERT HENNIG.

Primitive Guiana.

Mr. Quintin Hogg's description of his first visit to Devonshire Castle, given in his evidence before the Royal Commissioners, is very amusing reading. He said:

"Some 20 or 30 years ago I bought an estate, the last estate in Essequibo, and there was a large tract of country belonging to it of abandoned estates. One day I rode along and came to a place, the last village on the coast, and saw a couple of girls, about 16 or 18, stark naked, running a race down a public road. The place was in a perfect swamp; there was about 300 or 400 people living there; they could not get to their houses, any one of them, dry-footed; the houses were kept some four or five feet off the ground with some cranky old supports. I sent for the head men and said: "If I give you a koker" (that is a tube which would drain the land at low water, such as is always used there), "will you look after it and keep it right?" They said they would do it with great pleasure; so I went to an expense of over \$1000 draining their village, and I assisted them with a black schoolmaster, and fixed up their schoolhouses for them. When I went back eighteen months afterward I found the village in exactly the same condition as I had left it—swamped. I sent for the head man. I said: "Now, what is the meaning of this?" "Ah, massa, koker he leak." I rode along the draining trench, and soon came to a solid stop-off of mud in the trench leading to their koker. What had happened was this: The koker had been put in with the usual surrounding of wood; the sun had made the wood slightly shrink, so that the water trickled through between the iron and the wood. In preference to any man in the village doing that work they had put in a stop-off, and remained eighteen months swamped, without any drainage of any kind. I give that as an illustration, showing really how very indolent black men can be when there is no white man to lead them.

Did they suffer from the village being swamped? It made the place look uninhabitable to our European idea.

Did they suffer? They must have. No men can live with impunity in absolutely undrained land with stagnant water all around their places permanently. And then they met me and asked me whether they could have a white man instead of a black man to teach them. I told them I would give them nothing but a gallows until they took out that stop-off and make the drain right.—*Demerara Argosy.*

Mr. E. P. Stone, who was chemist during the past campaign at Governor Warmoth's fine place on the lower coast, paid us an appreciated visit last Tuesday. Mr. Stone was on his way to his home in New Hampshire, and expects to seek the sunny South again next year. He has established an excellent record for himself as a sugar house chemist.

Mr. Carroll Barton, of Magnolia plantation, in Assumption parish, which turned out this year some of the finest sugars ever sent to this market, was a guest of the St. Charles Hotel a week ago.

BEET SUGAR.

Watsonville, California.

From time to time during the past six months exchanges have published a report that the Watsonville beet factory would not be operated during 1898. The *Pajaronian* believed that no such conclusion had been reached by the factory owners, and when, in the *Christmas Call*, Claus Spreckels gave an estimate of the sugar production of the Watsonville mill during the campaign of 1898 we felt confident that the mill would be operated. Mr. Spreckels does what he says he will do. We have been informed this week that the Watsonville mill will run this year as usual, barring destruction of the plant by fire or other cause not under control of the owners; and the active work of preparing for the campaign will soon commence. This information comes from the factory management, and can be relied upon.

The factory management also states that all beets grown in the Pajaro valley are to be milled at the Watsonville factory; and that means that beets can be delivered there as in the past, by team. The relations between the factory owners and farmers are to be as in the past, and farmers can reliably figure on getting the old price for beets. The question of the disposition of the 1898 beet crop has prevented free signing of contracts, as Pajaro valley farmers feared that beets would have to be delivered at Spreckels, which involved a payment of 50 cents per ton for freight. Now that the uncertainty on that point has been removed, and all Pajaro valley beets are to be milled at the Watsonville factory, which is to run as usual next fall unless fire, earthquake or other cause beyond the control of the factory owners shall destroy their plant—there is no cause for further delay in signing contracts by all who wish to raise sugar beets.

Pajaro valley has now several thousand acres of land which can be profitably devoted to sugar beet farming this year, and this land is apt to be given over to the beet crop now that the questionable part of the contract has been cleared.

Next Saturday will be the pay day for all beets delivered during December.

The work of cleaning up and getting ready for the 1898 campaign will commence next week.

Henry Miller's pulp contract calls for 25,000 tons, of which he is receiving about forty-two carloads per week.

John Lacrabere, at his place near the factory, is pulp feeding about 300 head of cattle and 1000 head of sheep.

At the Koster cattle yards, adjoining the factory, about 800 head of cattle and 2500 head of sheep are being fattened on pulp.

Work is now going with a rush at the Spreckels factory. Superintendent Waters is on the ground personally directing construction.

Seventy-five seeders are to be made at the Watsonville shops this winter. Quite a crew of men will be employed at this work.

The announcement that the Watsonville mill is to run this year, and that Pajaro valley

beets will be sliced at the home factory, is welcome news for the people of this valley.

Contracts for 1898 can be signed at the Watsonville beet factory office. The beets will be milled at the Watsonville factory, and hence there is no danger of 50 cents deduction for freight.

Men are working night and day loading cars at the big pulp silo across the slough. Henry Miller is getting most of the supply. It is probable that the big silo will be cleaned of pulp before the summer opens.

The beet factory at Eddy, New Mexico, only ran six weeks, owing to a short crop. It handled 6000 tons of beets. The poor yield has discouraged farmers, and the land company will handle much of the acreage this year. From three to four tons per acre was all that was obtained from several fields, and of course that meant a loss.

The beet factory and the growing of the sugar beets have been most effective agents in bringing prosperity to this city and valley. Without this industry this community would not have escaped a visitation of the stringent "hard times" which other sections of the country have experienced. Now that the only point of difference in the 1898 contract has been removed the sugar beet industry should show strongly to the front in the Pajaro valley this year.

H. C. Grotheer, the Spreckels Company's superintendent of beet fields, was around Monday notifying tenants on the Spreckels lands that the company requests them to plant to beets two-thirds of the land instead of one-third as their contracts call for. Of course it is optional with them whether or not they will plant more than their contracts call for, but they will probably be glad of the chance. This fact is taken to mean that the company feels assured the factory will be completed in time to handle this season's crop.—*Pajaronian*, January 13.

The Beet Sugar Industry in Indiana.

[Address to the State Board of Commerce, at Indianapolis, delivered by the Evansville Manufacturers' Association, January 9.]

Mr. President and Gentlemen: The diversification of industry is one of the most fruitful sources of national greatness and prosperity. The failure to grasp this truth in all its branches has been a stumbling block to many a nation, whose boundless material resources, properly developed, would have placed it as the individual conqueror of the earth. There is but little necessity, however, to indulge such thoughts as these at the present time, for all the nations of the world are practically combatants for commercial supremacy, and leaving no opportunity to escape that will assist in its realization, hence it is that the beet sugar industry is attracting world-wide attention, its success in one country spurring the rest to imitate the example. The cultivation of sugar beets in Europe, more particularly in Germany and France, has proved so profitable that it only needed the assurance that it could be done with equally good results in the United States to spur the American farmer to undertake it on an extensive scale. The first efforts in this direction were richly

rewarded, and it is practically demonstrated that the sugar beet successful culture justified the introduction of beet sugar manufacture. Both to-day are among the most striking proofs of American energy and enterprise that have ever been presented to the world. The establishment of beet sugar factories will also be the upbuilding of our dairy interests, which would make our people prosperous. The raising of more corn and wheat in competition with ourselves and with Russia, India and South America will keep our noses to the grindstone! The cultivation of sugar beets has been shown to be so profitable that the farming element all over the country are experimenting with beet culture. Secretary Wilson, of the Agricultural Department, is furnishing all necessary information and beet seed to all who wish to make the trial. Mr. Wilson should be commended for the interest he is taking to advance our agricultural interests. When the farmer is prosperous we will all share part of the benefits! In fact, we must look to the farmer to help build up our cities!

The average price of sugar beets is about \$4 per ton the world over delivered at the factory, and the average yield per acre is from twelve to fifteen tons. The cost of cultivation is about \$20 per acre; this includes the rent of land and the delivery of beets to the factory, which insures a net profit of from \$25 to \$30 per acre. When raising corn or wheat they don't realize over \$8 or \$10 per acre, and in most cases they have not been able to get back the amount paid for their labor, much less other expenses. Taking those facts in consideration, should it not stimulate us to take some action? There are nine sugar factories in operation in the United States at the present time, location and daily capacities being as follows. Rome, N. Y., 200 tons of beets per day; Lehi, Utah, 350 tons; Los Alamitos, Cal., 350 tons; Eddy, N. M., 200 tons; Chino, Cal., 700 tons; Norfolk, Neb., 250 tons; Grand Island, Neb., 350 tons; Alvarado, Cal., 500 tons, and Watsonville, Cal., 1000 tons, and the Claus Spreckels factory at Salinas, Cal., which is now being built will have a capacity of 3000 tons of beets per day. The benefits accruing to merchants and tradesmen in the vicinity of these factories are immense, and evidence of prosperity may be witnessed on all sides, directly attributable to the progress of this new industry. Together with these financial benefits there is another fact not to be overlooked, as it cuts quite a figure in the economies of the industry. After the extraction of the sugar from the beets there remains about 50 per cent. of beet pulp, which is excellent food for cattle, swine and sheep. As a milk producer this pulp has shown such good results that the vicinity of a beet sugar factory has been deemed the best of locations for a creamery or cheese factory. The importance of this industry from a mechanical standpoint is also one that can not well be overlooked—the investment in machinery already amounts to several million dollars. A properly equipped beet sugar factory is immense; the machinery is intricate and costly in its character. Most all the beet sugar machinery is now imported from Europe, but it will not take

long for the American mechanic to wake up to the emergency. Already American manufacturers are beginning to manufacture parts of the machinery required, and in a few years it will all be manufactured at home. This means a great addition to our consumption of iron, which is now seeking new markets in all parts of the world. The capital thus invested will yield a handsome return to all engaged in it and will go far to open an escape valve for the energy now seeking employment, and new and more profitable fields of employment. What is there to prevent us from making all our sugars? We certainly have more advantages than our friends across the water. The European farmers start with a cost of about \$15 per acre for land rent, and \$15 per acre for fertilizer, and it may be presumed that the cost to the average European farmer is the same. Our great advantage lies in the fact that our farmers are common proprietors not paying a cash rent, and our land for a while, if properly cultivated, will not need much expenses in the way of fertilization. We are interested in the success of our own State, and I believe that the State of Indiana can show more natural advantages that are favorable to the beet sugar industry than any other State in the Union. We have the richest of land, mostly inhabited by thrifty German farmers, also plenty of cheap coal for fuel, and an unlimited supply of lime and stone, and an abundance of water, which are the most important factors in the manufacture of beet sugar. Not long ago Secretary Wilson, of the United States Agricultural Bureau, sent his chief chemist, Dr. Wiley, into our section, the southern part of this State, and I had the pleasure of making several trips in the country with the gentleman, while he was investigating our conditions, and Dr. Wiley expressed his surprise at the thousands of acres of our rich bottom lands, and the cheapness of coal—in fact, Evansville is built on a belt of coal and our hills are full of limestone, and we also have plenty of water; in addition we have good transportation facilities, both by river and rail. In a speech by Dr. Wiley to our business people, he said: "You have been hiding your light under a bushel! You have been too modest! *You should let the world know of your advantages!*" In fact, he stated Vanderburg county was the best place he ever saw for the development of this new industry. "I hope that you, gentlemen, will pardon me for talking so much about my part of the State. The fact is that I am only repeating what has been pointed out to me by experts. I am proud to live in the city of Evansville, and I am proud to know that it is part of the great State of Indiana, of which we all have a right to feel proud."

Our section of the State has been experimenting with beet culture on a considerable scale during the past year. Our Manufacturers' Association, in connection with the Business Men's Association and with assistance of the railroads, have distributed beet seed to 500 farmers throughout our district for experimental purposes. We have had sixty-five analyses made of the beets raised; half of these were made at Washington, D. C., and the other

half at the Purdue Experiment Station. These analyses were made from time to time as the beets developed, in order that we might know at what stage they took up the largest amount of sugar contents. Considering the late planting of seed and the imperfection in cultivation, as it is yet new to our farmers, the results were more than gratifying. The question now is, what can we do to secure for Indiana fifty beet sugar factories in the next six or eight years, as there is room for that number or more?

There is plenty of capital ready to embark in any safe undertaking that promises a fair return on their investment, and there is no gentleman here whose community would not extend a helping hand to start a factory. There should not be a man in the State of Indiana who would not take off his coat and work early and late to secure a plant in his community. We meet here to devise plans for the forward march of progress, and I have full faith through this body here assembled will come some new inspiration and new life to further the upbuilding of this important industry. We must further bear in mind that the American people are the greatest sugar eaters on the face of the earth, and, with our jelly-making and fruit-canning industries, I will only have the tendency to increase the consumption of sugar from time to time, so you can see that we have an unlimited field in which to expand our energies. It behooves us to keep this matter agitated until some results are obtained. The United States has been a long time coming to the point, for our beet sugar industry seems likely to make rapid progress. We are interested in our own State, and it is our duty to arouse capital and point out our resources and advantages.

F. GROTE,

Chairman Beet Sugar Committee of Evansville Manufacturers' Association.

Beet Sugar in America.

The agricultural experiment station in Missouri does not encourage the farmers of that State to go into the cultivation of sugar beets, but the tests of the College of Agriculture in Cornell University are very encouraging to the farmers of New York. Tests of beets from 272 plats, in twenty-two counties, gives an average of very close to 17 tons of beets to the acre and of 16 per cent. of sugar in the beets. Both of these results are high. Thirteen to fifteen per cent. of sugar is common and the yield is usually 12 to 14 tons to the acre, though with careful cultivation it has frequently run a good deal above 20 tons.

Test plats and laboratory experiments probably give rather better results than general field culture and factory work. The experiments are in no sense decisive except for half a dozen counties. Of the 272 plats from which beets were tested 234 were in six counties; as to the other 16 counties it can not be said that enough is yet known to warrant the opinion that sugar beet raising would pay in them.

Sixteen per cent. of sugar from 17 tons of beets gives a little more than 6000 pounds of sugar to the acre. Four dollars and a half a ton for the beets at 17 tons to the acre would

be a little more than 1¼c. a pound for the sugar in the beets. A factory getting its beets at this price would be a very profitable concern, while the farmer who got \$76.50 an acre for his gross crop would be on the high road to prosperity. Three dollars a ton would be a very high allowance for his expenses, and it would leave him a net profit of \$25.50 per acre. That compares very favorably with 70 cents a bushel for 14 bushels of wheat per acre, the costs of cultivation to be deducted from these gross receipts of \$9.80.

How favorable the above figures are may be appreciated from the fact that in the past season in the Watsonville factory, California, 86,351 tons of beets yielded 10,835 tons of sugar, or 13.3 per cent. of the weight of the beets, while the results of another very large run were only 12.5 per cent. of sugar. Yet the factory pays \$4 a ton for beets and is apparently prosperous. At a recent meeting in Ogden, Utah, of gentlemen who proposed to go into the beet sugar manufacture a stockholder in the factory at Lehi said that for the past two years that factory had paid dividends of 37½ per cent. annually, and in his opinion the factory at Ogden could make more money than the factory at Lehi. But the last season was a bad one for the farmers near the Lehi factory. A dispatch from Alvarado, Cal., says that from 6000 acres the farmers would harvest only 45,000 tons of beets instead of the 80,000 that they expected. This is only 7½ tons to the acre instead of more than 13 tons. But the farmers were none the less determined to raise beets next year; for beets they were sure of \$4 a ton; even on the poor yield of last season this would be \$30 an acre on a certainty, but they would of course have a right to expect something a good deal better than the minimum production. Even with a moderately poor yield they could scarcely lose and might make a little.

From Los Alamitos 30,000 tons of beets yielded 14.5 per cent. in sugar, the crop being 10.4 tons to the acre, and the receipts of the farmers \$88, very nearly, to the acre. Here the yield of sugar to the acre on nearly 3000 acres was 3390 pounds.

The records of the Belgian beet sugar production for nine years shows an increase of more than 56 per cent. in the acreage; the yield of beets per acre ranged from 10.4 tons to 15.6 tons, and averaged 12.8; the percentage of sugar in the beets varied from 11.9 to 13.2, and the yield of sugar per acre averaged 3495 pounds.—*New York Journal of Commerce.*

Mr. Walter I. Barton, one of Ascension's leading lights in a sugar planting way, was a recent visitor to New Orleans. Mr. Barton registered at the St. Charles Hotel.

Col. J. W. Barnett, of Shadyside, was a guest of the St. Charles Hotel on Monday last.

Mr. E. Cherbonnier, a prominent sugar planter of St. James parish, was in the city on a visit a few days ago, and put up at the Hotel Royal.

H. C. Boas, Esq., of Iberia parish, where he has extensive interests of a sugar planting nature, was among the recent visitors to New Orleans.

Discussion at the Meeting of the Louisiana Sugar Planters' Association on Thursday Evening, January 13, 1898.

CRYSTALLIZATION IN MOTION.

Judge Emile Rost in the chair.

The Chairman—since the last meeting of this association one of our most valued members has been called away; we have lost the valued services of Mr. L. C. Keever. Mr. Keever died since our last meeting, and it would be eminently proper that this association should put on record a resolution referring to the loss which the association has sustained.

Mr. L. M. Soniat—I move that a committee of three be appointed to draw up a set of resolutions touching upon the death of Mr. Keever.

The motion was unanimously carried.

The Chairman—I will appoint on this committee Mr. L. M. Soniat, Mr. Bouchereau and Col. George G. Zenor.

(The resolution passed by the association appeared in our last issue.)

The Chairman—I will state that the subject of *Crystallization in Motion* has been before the association for several months. At the December meeting Mr. E. P. Eastwick was represented by Mr. Dearborn, who came here with a paper prepared on this subject. There being no meeting that night, for want of a quorum, the discussion was postponed until this evening, and the subject this evening will therefore be "*Crystallization in Motion*," and the first paper read will be that of Mr. Eastwick, and afterward Mr. Joseph E. Kohn will have a paper. He is the consulting engineer of the Kilby Manufacturing Company. Mr. Eastwick will please present his paper.

Mr. Eastwick read his paper, at the conclusion of which a vote of thanks was tendered him, and on motion, duly seconded and carried, it was ordered published in the official journal. This was followed by the reading of Mr. Kohn's paper, similar action being taken.

Both papers appeared in full in our last issue.

The Chairman—These are the only two papers on the subject of crystallization in motion. The Chair will state, as an encouragement to the discussion of these papers that last week, through the kindness of Mr. Eastwick, a number of planters went down the river to the Beka plantation, where the crystallizer was in operation; and the Chair, without going into details, will state that when visiting the sugar house we found in place of the usual long, ceiled and steam heated hot room, an iron cylinder, closed at both ends, and having somewhat the shape of the model which you see before you; the cylinder which we saw seemed to be about 18 or 20 feet long by 6 feet in diameter, and seemed to be revolving very slowly. That was all we could see. We were shown the contents of the cylinder and were told that this masse cuite in the cylinder after turning for twenty-four to thirty hours—for a space of time—would then be turned into the mixer, and the masse cuite was then ready for the centrifugals. The secretary brought with him a sample of the sugar dried in the machine, from the charge in this apparatus, and this sample will be passed around to show you gentlemen. Any person can see the sample of the grain that is made by crystallization in motion. I shall be glad to have the matter discussed by the members of the association.

Colonel Zenor—I just want to ask for information. I just want to ask if any one witnessed the operation of this practical test; whether there was as much sugar per ton by this process as is usually obtained from what we call our "second" and "third" sugars. This involves a good many inquiries that may be asked, and a good deal of talk might be expended to get at the facts and the value of the machine.

Mr. W. J. Thompson—Both papers which have been read here to-night claim on purely theoretical grounds an extraction greater in

sugar from the molasses than by the old process. May I ask Mr. Eastwick whether he has the purity of the molasses which has been produced in this manner?

Mr. Eastwick—Yes, I made tests of that myself, and the results were these: I found with a 65 coefficient of purity, the masse cuite 65 coefficient of purity; that in eighteen hours it could be worked off—that is, after being in the crystallizer, it could be worked off, producing molasses from 32 to 40; the lowest reached was 30, the average being 38, probably, in a series of experiments made with a coefficient of purity, the masse cuite having a coefficient of purity of about 55 and drained then with the molasses not lower than 65. Mr. Oxnard told me he has been using this process for some time; not my apparatus, but the Kilby apparatus; that his custom there is to take 65 coefficient of purity and leave it in the crystallizer from eighteen to twenty-four hours, then work the molasses off into centrifugals. He then gets about 38, or say somewhere between 30 and 40 coefficient of purity of molasses. He then lets this molasses run into tanks, or a large receptacle in the ground, where it is left until the end of the season, and to this he has connected a *magna* pump with which he pumps the molasses back and once more passes it through the centrifugals. He claims he has got his molasses down to 23. He claims, also, there is no inversion.

Mr. Thompson—Is that coefficient of purity of 23 determined by the single or double polarization?

Mr. Eastwick—By the polariscope. Of course there is a certain amount of inversion which takes place, a fermentation of levulose, which makes the polariscope test.

Mr. Thompson—Let me say, if our experience is worth anything, the fermentation which you speak of as taking place in these wagons is of glucose and not of sucrose. For many seasons we have controlled all the sucrose and glucose, and solids, into our wagons; we have also controlled it to determine the pounds of sugar, coming out the wagons—both sucrose and glucose. The sucrose which goes in comes out pound for pound; the glucose goes in and disappears in a large measure, with a rise of purity in consequence; the disappearance has been one of glucose. Now that is the result of a number of years of experience. Mind you, these are not theories.

Mr. Eastwick—You make that test by polariscope.

Mr. Thompson—Yes, sir.

Mr. Eastwick—Don't you think in standing that way in a wagon that there is a fermentation of levulose. I state this from my own practical experience. I found in Louisiana sugars there is a fermentation which is not very obvious—you don't notice it, but there is a fermentation going on there with the production of levulose which causes the polariscope to polarize very much lower than actually exists.

Mr. Thompson—For which reason we use double polarization.

Mr. Eastwick—But you stated with the single polarization.

Mr. Thompson—The double polarization is correct. This gives a purity in one case of 10, and in the other of 15. I don't expect you to believe it in this case. I would not believe it myself if anybody else had told it.

Mr. Eastwick—Twenty-three is as low as I have ever heard.

Mr. Thompson—Dr. Wiley sent Mr. Hubert Edson down to see if there was not some error. From the fact that we did not believe our figures. He concluded we were all right. Mr. Edson has remained with us nine years.

Mr. Eastwick—These are interesting results, and I have never heard of them before.

Mr. Thompson—In pounds of sugar there is a very great difference.

Mr. Eastwick—Have you determined in the first place the amount of sucrose which you

have in your juice, and then take the amount of sugar and molasses that you produced—estimate your loss and check that up in that way to find out whether the test of your molasses could be as low as that?

Mr. Thompson—That has been done year after year.

There is no contradiction in our work. There is no disappearance in sucrose; rose; but of glucose there is a very decided disappearance.

Mr. Churchill—I have been connected for a number of years with a large molasses refinery here, and I find quite frequently molasses as low as 18 purity—I found once 15 purity; frequently 22 and 23, though it generally runs up to about 30.

Colonel Zenor—I would like to ask Mr. Thompson about the amount of molasses—the number of gallons he gets on an average per 1000 pounds of sugar?

Mr. Thompson—I don't know anything about it—I don't remember; that matter varies so with the purity of the juice which we start with. We pay little or no attention to what are generally termed "industrial figures." As to the pounds of sugar, glucose, non-sugar, etc., we are informed, but as to gallons we do not know anything about them at all; but we have had—I think I am within limits when I say fourteen gallons; but I may be away off. I am speaking simply from memory.

Colonel Zenor—Is not the amount of molasses that is left the residue, we may say, of the product—is not that an indication to a certain extent of the amount of extraction?

Mr. Thompson—No, it is not; it is so largely influenced by the character of the juice which you start with.

Colonel Zenor—I base that upon this fact. I have known men in the open kettle process to get as much as sixty, possibly seventy gallons of molasses to a thousand pounds of sugar, whereas, by the vacuum and centrifugal process, it is reduced as low as you may say, perhaps twelve or fifteen.

Mr. Thompson—Yes, in that neighborhood.

Colonel Zenor—I think it attributable largely to the percent of sugar extracted.

Mr. Thompson—So it is.

Colonel Zenor—I would ask, in connection with this, Mr. Eastwick, you stated that, if I understand your paper, you take in enough syrup, or firsts, as we term it, to make a crystal in your pan. What percent of the first, of syrup, is taken in comparison to the amount of seconds that you draw in before you strike into your machine?

Mr. Eastwick—Taking in syrup is simply done for the purpose of gaining time for your seconds. The whole idea is to get a start of the grain before you put it in the crystallizer. You don't try to build on that grain in the vacuum pan; you simply get a start, then you put in the crystallizer—the idea being to build on that grain which you start in the pan. If you take your seconds and attempt to get grain it will take a long time. We don't do it in a comparatively short time—less than an hour—sometimes can not do it at all. In order to hasten that I generally take in a very little firsts—very little syrup. Now, the strike I took in at Beka, in what would correspond to say a 9-foot pan, was say about 1 inch of 30 Baumé syrup out of a tank about 6x8; you can not imagine what a small quantity that was.

Colonel Zenor—I should not think that would be enough to cover the bottom.

Mr. Eastwick—It is only to raise the purity of the low stuff and get a grain within a reasonable time.

Colonel Zenor—I asked that because there are a good many in the State that take, say, one-half of a strike of the first sugars out of the pan, leaving one-half in the pan, and then fill up with these seconds and boil it to crystallization, and get a very fine result from it. I have had sugar made in that way about one-half seconds—that would sell as high on the market as any yellow clarified.

Mr. Eastwick—In your case of course you have the crystal already formed—your first sugars—and you keep boiling on that crystal—it is really a cut strike that does not correspond with crystallization in motion.

Colonel Zenor—There is another point. We will say on a plantation making, just for illustration, 100,000 pounds of sugar a day. It is presumed that say 30 per cent. of that will be second sugars, and 70 per cent. would be firsts, which would be a good result. You take that 30 per cent. and put it in your receptacle. You would have, I should say, out of that amount of sugar, per day, about seven of eight thousand gallons of seconds from that amount of sugar. Now can you take that in one of these machines at one time and keep up the work?

Mr. Eastwick—The actual results at Beka—they grind from 150 to 160 tons of cane a day. A crystallizer of 320 cubic feet that has a capacity of about 40,000 pounds was able to take care of all the seconds produced from that 150 tons of cane ground per day; and Mr. Harrall claims he could have taken 300. From my own conclusions I say that 40,000 pounds masse cuite per day of seconds would probably be the result of about 200 tons of cane ground per day. I say it is simply a matter of calculation to reduce the coefficient purity from eighty to sixty.

Colonel Zenor—Do you claim you get as much sugar from a large discharge of this apparatus of yours as we get by boiling our seconds and then into thirds—would get as much sugar?

Mr. Eastwick—These results are about the same.

Colonel Zenor—This, then, will save delays in our boiling of the residue?

Mr. Eastwick—It is a question of how often you boil back. I have been in sugar houses where we boiled back five times.

Colonel Zenor—I just alluded to the first process. We will take the syrup from that (that is what we call pure seconds). Then we purge these seconds, and the residue from that we boil and we get thirds. That is the process I allude to. I believe that is about the process you adopt, Mr. Thompson?

Mr. Thompson—We boil firsts, seconds and thirds straight.

Mr. Eastwick—It is this way: If you boil your first sugars and then take the molasses coming off of that, called your seconds, and put that in crystallization, leaving it in the crystallizer eighteen hours, you would get a molasses off that stuff in the crystallizer having a test between 30 and 40. It would probably be somewhere like 36 or 38. What comes off that crystallization in that case would be your thirds. That is what I spoke of Mr. Oxnard putting in the receptacle he had in the ground, and which he left there until the end of the season and then worked once more through the centrifugal down to 23.

Colonel Zenor—If you want to reboil that residue in the pan immediately, would you reduce to the point that would crystallize in your pan?

Mr. Eastwick—Yes, exactly in the same way. You would start with a little grain in your cars, then bring in your thirds and start off.

Mr. H. G. Morgan, Jr.—A good many of us present are not acquainted with polariscopic work in sugar houses; I am not. We generally boil our sugar, take the first syrup into the pan as much as possible and then cut the pan as low as possible. The washings from the first sugars are boiled back in the pan and we have seconds, and we boil then third sugars that are run up in the hot room.

I understand that if we boil the washings of first sugars with a little of the first sugars to start the strike in the crystallizer to grain it, it would probably be no more than 18, 24 or 30 hours, as you say it is—the washings from that as it comes into the centrifugals is that drained again into the pan with a lot of the first syrup—the washings from the seconds?

Mr. Eastwick—You could do it, but that

would mean passing it twice through the crystallizer.

Mr. Morgan—We boil, as I say, we granulate our seconds on a nucleus of the first sugars left in the pan; we have that grain to build up our strike from. Of course the results from that would be lower than the results from a straight strike of firsts, necessarily because some of the strike would be seconds. I could crystallize that in the crystallizer and the washings from that I would want to bring back into the crystallizer again and that would be our thirds. Would it be possible to do this?

Mr. Eastwick—In that case you would require the crystallizer to be filled twice. In other words, once for your seconds and then for your thirds—I don't think it would pay to do this. When you have your molasses down to 30 coefficient purity, it would be better to let it go into the tank, and then if there were any grains settling out you could work it through your centrifugals once more.

Mr. Morgan—Just use our seconds on first syrups?

Mr. Eastwick—Yes, sir.

Mr. Morgan—Your experience would be the same as ours; you would have the washings from the granulated sugars.

The Chairman—My impression is when we went to see the crystallizer working at Beka, there the sugars were granulated in the pan—what they called the first sugar. It was grained in the pan. The washings from this were mixed with a little syrup, passed through the crystallizer and made seconds; after the seconds, thirds.

Mr. Morgan—Can we take the washings of the granulated seconds and take them into the pan also instead of letting them go back into the tanks—the washings from the granulated seconds?

Mr. Eastwick—If you once have your grain there you can then start the crystallizer up, and it will commence to take sugar out of the mass.

Mr. Morgan—Last week our juice dropped down by the polariscope. I could not tell a thing about it. I knew from the work in the house it dropped down, and we found we could not granulate our washings from the firsts successfully—it took a long time; it would not wash well in the centrifugals. With the crystallizer, without having these tanks, can I run that gummy stuff into the crystallizer, and expect it to crystallize on the nucleus received from the first syrups—the gummy stuff would work just as successfully as it would for two or three weeks' time?

Mr. Eastwick—It would work better in the tank. We tried some sugars there, and took seconds coming off and put some in hot room that never did grain. We put some through the crystallizer, and they grained in thirty hours. That was the difference.

The Chairman—The larger quantity of first sugars they have usually obtained that result.

Mr. Eastwick—In the beginning, because the stuff was gummy, it could not grain, but when it was put through the crystallizer it grained in thirty hours—we got the molasses way down near thirty.

Colonel Zenor—In place of taking syrup into your crystallizer, why not leave a small residue of the seconds that you are grinding, as we do in our pan when we strike granulated seconds?

Mr. Eastwick—The objection to that would be that you would have a big grain. You don't want a big grain; you want a large quantity of small grains, and you want to build on that fine grain and build that up; you want a small amount of very fine grains and build that up.

The Chairman—The only practical test made in this State is the one Mr. Eastwick kindly showed some of us, and which is situated below the city—that is the only sugar house having the apparatus. I understand the apparatus at Adeline is the Kilby apparatus, which is somewhat different from yours.

Mr. Eastwick—Yes, but the general process is the same.

The Chairman—The chair don't understand from your paper why you claim an increased production of sugar by the use of the crystallization in motion.

Mr. Eastwick—Where I claim an increased production of sugar is this: There is no time for inversion; inversion does not take place, consequently you get more sugar out comparatively. If working by your polariscope you will find a low test of molasses, but that may be due to inversion. If you take that up you will find a good deal of sugar has gone into levulose, and what I claim for crystallization in motion is that it is quicker process.

The Chairman—There were many points which we failed to get information on during the visit to the sugar house where the crystallization was in operation—the quantity of sugar obtained from the crystallizer, say, to the 100 pounds of first sugar; whether that quantity was below or above the normal quantity; in other words, did the crystallizer add to the 100 pounds of first sugars—did it add thirty, forty or fifty pounds more?

Mr. Eastwick—The way they were working at Beka they were working for low test sugar; they were working for weight. They did it in this way—their first sugar they did not wash very dry; and it would not average over 96 test. Think they were making these cut strikes. They were averaging over 400 pounds per barrel, so you can tell about how much molasses they had in it—they made it about as heavy as they possibly could. It had a large grain and could be easily washed in three machines and brought up to 96 sugar with the use of a little water. Therefore it brought, so Mr. Harrall tells me, a higher price than seconds of a corresponding test.

Judge Rost—The big grain gave it a greater value in the market.

Mr. Eastwick—They got on an average 2½ cents for the sugar.

Mr. Richard McCall—Do you put one strike into the crystallizer, or do you stop for awhile and put in a second one if you use—

Mr. Eastwick—The ideal way of working the crystallizer would be to have the crystallizer the size of your pan, or to have two crystallizers to hold the contents of your pan—then discharge the whole contents of the pan and fill the crystallizer up and start them off, and do not stop them until you are ready to work off.

Mr. McCall—No particular size that these should be made?

Mr. Eastwick—I have made one—the one I made at Beka and the ones I am making now will hold from forty to forty-five thousand pounds. That would be about right for a nine-foot pan—then it is a convenient size. Of course it can be made larger. I believe those put in by Mr. Spreckels were twice as large as that; but I see no object in making them that large—they would have a tremendous weight.

Mr. Kirchoff—In connection with all our hot room sugar, temperature cuts a great figure. We endeavor to get our sugars from the vacuum pan, especially if the sugar is very low in test, keeping the temperature as high as possible and keeping the hot room correspondingly high, so the sugar will cool off gradually and give a bigger yield. In connection with that apparatus, what temperature is observed in putting it in?

Mr. Eastwick—Just the same as boiled in the pan.

Mr. Kirchoff—What is the temperature of the room?

Mr. Eastwick—It varies as in the open air.

Mr. Kirchoff—In Germany, I believe, they found that at a certain temperature a false grain would come in and they get rid of this grain by raising the temperature.

Mr. Eastwick—There is no necessity of that if you cool gradually enough after you get the grain in. If you cool gradually that false

grain would not come in any more than in the vacuum pan.

Colonel Zenor—I would ask if the gentleman can tell us about the cost of one of these crystallizers for, say, 40,000 pounds.

Mr. Eastwick—They vary very much. I really don't know the cost of this apparatus. I think the Kilby apparatus costs something like \$2000 or \$2500. The Whitney people are making my apparatus of the same size, I believe, and it is selling at \$1700.

Colonel Zenor—Of course you depend on the size to a great extent—that is, for the capacity you speak of.

Mr. Eastwick—That is, for the capacity of a 9-foot pan. If you take into account the number of cars you require to take care of the seconds and the amount required for the cane ground per day, I think you would find the cost as much as that of a crystallizer—then you also have the expense of the hot room and the labor and the time.

Mr. Churchill—What are your calculations based on—a 300-ton house, or a 500-ton house.

Mr. Eastwick—My calculations are based on a crystallizer of 40,000 pounds capacity. This ought to take care of all the seconds of about 200 tons per day, because, remember, you have to keep it twenty-four hours. If you have a 400-ton house you would have to have two. Oxnard and Sprague have about six—they grind there about a thousand tons per day. A crystallizer of 40,000 pounds capacity is a very convenient size.

The Chairman—I would ask Mr. Eiger for his views on the subject.

Mr. Eiger—We consider it a great success. We don't get as low as Mr. Thompson; we get thirty-six to thirty-eight purity.

The Chairman—Thirty-six to thirty-eight purity?

Mr. Eiger—Yes, sir.

Mr. Eastwick—That was from seconds.

The Chairman—Can you give us any idea of the sugar obtained from the masse cuite?

Mr. Eiger—About 60 per cent. of the sucrose.

The Chairman—Was this obtained from the washings of straight seconds?

Mr. Eiger—From mixed stuff.

The Chairman—How many crystallizers are required to do the work there?

Mr. Eiger—We have six.

The Chairman—Each one represented how much?

Mr. Eiger—It gives between 60,000 and 70,000 pounds masse cuite.

The Chairman—Does it take six of these 60,000-pound crystallizers to do the work of the sugar-house handling about 1000 tons per day.

Mr. Eiger—Yes, sir.

The Chairman—Can you inform us after the sugar is taken from the crystallizers and passed through the driers, whether that molasses is reboiled and placed a second time in the crystallizer?

Mr. Eiger—A part of it was—yes, sir; that which went over 40 would be placed back in the crystallizers; below that would be placed in the reservoir.

Mr. Baldwin—I am very glad to see this interest taken in crystallizers; but I think we want to keep our eyes open on the pans, because they can do a great deal more than they have been made to do in this State. Of course, the crystallizers are good; but I think a good deal more can be gotten out of the vacuum pans than has been obtained. For instance, I know of a sugar house this year that used no cars in its work, but yet has now 170 pounds of sugar per ton juice crystallized in the vacuum pan, and it closed up its work for the season eighteen hours after it stopped grinding cane until next summer, when it will rise thirds.

The Chairman—I would ask if that 170 pounds was all of one grain; whether any remelting was done?

Mr. Baldwin—There was no remelting done, but about, I should say, eight-tenths or four-

fifths was raw sugar. It polarized, I suppose, 96 per cent. pure sugar, the other was white.

The Chairman—Four-fifths raw sugar and the other one-fifth was white.

Colonel Zenor—You claim to have gotten 170 pounds of sugar to the ton. This is what I think you stated. How much do you think you will get from your thirds?

Mr. Baldwin—Mr. President, this is getting to be rather a personal matter, and besides you might think I am boasting. Gentlemen, if you don't think I am trying to boast, I would say we are expecting about twenty pounds. I only mention this to show what the vacuum pans will do alone.

The Chairman—The results you obtained this year do you consider normal results?

Mr. Baldwin—We put in a new mill about two years ago—a little better mill than we had, so you see this helped the work better than two years ago. I do not think the results abnormal. If I may speak again, I would say in the running of a sugar house the great thing is the watching of small details—even down to the washing of the filter press cloth. I think that one of the chief secrets is eternal vigilance.

Cinclare Central Factory.

On Friday evening, December 31, the writer, in company with a party of Port Allenites, paid a visit to Cinclare central factory, which is now, without exception, the largest and most magnificently equipped sugar factory in the State. The run down to Cinclare was pleasantly made on Cinclare's own train, under the management of Mr. Alphonse Rivault, who attends to the outside interests of the factory. Arriving at Cinclare, the party were hospitably received by Mrs. Charles S. Burns and her charming daughter, Miss Theo, who, with Chief Engineer Sammons, conducted the visitors around the plant and explained to them the workings of the ponderous and complicated machinery.

The first point visited was the cane shed, which is a vast structure of steel, 200 feet long, 50 feet wide and 60 feet high, with a steel carrier 300 feet long, extending through its entire length to the crusher, on the second floor of the factory. This carrier is fed on one side by standard gauge railroad cars and on the other by plantation carts. The cane is hoisted out of the cars by a large electrical hoist built by the Morgan Engineer Company, of Alliance, O., and the carts are unloaded by a trolley system constructed by the same firm.

We next moved on to the electrical plant, which is, without doubt, a work of art. It consists of two Siemens-Halske direct-connected generators, one of 75 and the other of 125 horse-power, driven by two Houston, Stanwood & Gamble cross compound engines. This plant furnishes the power for the cane hoists, blowers, washers, centrifugals, etc., and is very complete. Turning from this room, we were confronted by the mammoth mill, which consists of 6 rollers, 7 feet long, 34 inches in diameter, manufactured by the Reading Iron Company, of Reading, Pa. The mill is driven by a 26x60 Cooper Corliss engine, built by the C. & G. Cooper Company, Mt. Vernon, Ohio. We next inspected the Krajewski crusher, which prepares the cane for the mill. This is certainly a wonderful piece of machinery, consisting of two corrugated rollers, one placed above the other and driven by a 22x36

engine. The Krajewski takes the cane in all conditions and passes it through its hungry jaws, which, like Oliver, are apparently ever demanding "more." The most commendable feature of the crusher is that it prepares and distributes a perfect feed to the mill at all times, regardless of the uneven feed upon the carrier.

Attention was next directed to the bagasse boilers, which consist of four boilers 11 feet in diameter and 16 feet long, of the modified marine type. This boiler plant is one of which Mr. Sammons feels justly proud, as he is the originator of the style of boiler for this purpose and has succeeded in accomplishing the feat of supplying the whole house with steam with the refuse of the mill. So far as our information extends, Cinclare is the only factory in the State that has succeeded in accomplishing this result, which is certainly a step in the right direction. These boilers were turned out by the Wickes Bros., East Saginaw, Mich.

Our party then climbed the stairway and took a position on the gallery, which runs from one end of the building to the other, and where everything in the factory is under the eye, from the boilers to the vacuum pan. Here, also, one gets a fine view of the building, which is of steel construction. In the glare of the electric lights the network of steel trusses suggests the thought of a huge spider-web.

We then made an inspection of the Deming system of clarification, which consists of a digester and two absorbers, where the juice is clarified at a high temperature under high pressure, and then discharged into three large settling tanks, where it is ready for the evaporators. The evaporators used in this house are the Lillie reversible quadruple effect film system, the invention of S. Morris Lillie, of Philadelphia, and are certainly splendid pieces of machinery. A visit was then made to the vacuum pan room, where the syrup is granulated and dropped into a huge mixer 45 feet long and 8 feet wide. The inspection of the factory was then completed by a visit to the centrifugal department, where the sugar was pouring out like snow from five 40-inch and four 30-inch centrifugal machines.

Boarding the train, our little party were soon landed at Port Allen, where three hearty cheers were given for Cinclare and its progressive management. The crowd then dispersed, each and every one retaining pleasant memories of a delightful evening spent at the model sugar factory of Louisiana.

Cinclare is the property of Mr. Harry L. Laws, a Cincinnati capitalist, who is a pioneer in the application of up-to-date methods in the cultivation and manufacture of sugar. The factory was constructed during the past summer at an enormous expense, and reflects great credit upon Mr. Laws and everybody else connected with it. Mr. Chas. S. Burns is the able manager of this vast estate; Mr. E. A. Sammons, a mechanical engineer who has few equals and no superiors in the State, has charge of the factory, while that prince of good fellows, Alphonse Rivault, looks after the railroad and other outside interests. To the small planters between Plaquemine and Por-

Allen Mr. Laws is offering liberal inducements, not the least of which is free transportation to the factory of all cane sold to Cinclare.—*West Baton Rouge Sugar Planter.*

The Sugar Bounty War.

Lord Pirbright contributes to the *National Review* an impassioned, not to say passionate, appeal for countervailing duties on bounty-paid sugar in the interest of the British West Indies. Less feeling and more figures would have made his appeal more effective with reflecting persons.

The question of countervailing duties he represents to be an issue between the salvation of the West India colonies and some free trade theories. We apprehend that very few persons even in England are greatly affected in their conduct by dogmas of economists, but a great many are affected by what the economists of one school or another have convinced them is for their own interest. Now, if Lord Pirbright had been content to fling a few less stones at free trade theorists, and had discussed the facts of the present situation, he would have made, it seems to us, a far more convincing statement of the case of the West India colonies.

We are indifferent to the *a priori* argument based upon free trade dogmas, and we admit that Lord Pirbright has proved that Mr. Gladstone and other free traders have recognized bounties on exports as an interference with the course of free trade, and therefore properly subject to countervailing duties or other means of retaliation. But if the free traders, or their leading lights, are on the side of countervailing duties, why does not Lord Pirbright make the most of the fact instead of expending his sarcasms upon the theorists of the Cobden Club? If free traders are blind followers of dogmas he should have convinced them out of the mouths of their accepted teachers that the dogmas to which they are attached favor the countervailing duties, instead of angering them by treating their opinions and their intellectual apparatus with marked contempt.

Let us consider the facts. Why does Lord Pirbright object to bounty-paid sugar so long as the bounties come out of foreigners? Because it is cheap. No person ever objects to this when he buys sugar, so that the injured interests are the West India producers and the refiners, or the late refiners, of England. Now, would it not be more rational to consider the relative value of the interests demanding higher sugar and those demanding lower sugar, and decide in favor of the predominant interest?

Whether the countervailing duties would raise the price of sugar or not, in the judgment of Lord Pirbright, we do not certainly know. He implies in a part of his essay that it would raise the price, but the consumer would get certain offsets for this; elsewhere he assumes that the price would remain unchanged. As the complaint of the West India planters is that sugar is too low to be profitable, we presume that Lord Pirbright believes that countervailing duties would make sugar more expensive and desires them for that reason.

We can readily see that there might be advantages in other directions that would justify an increase of the price of sugar. But are there? Is it not a fact that the per capita consumption of sugar in England has increased fivefold in the last thirty or forty years; that not only do the consumers have to work fewer hours to procure their year's supply of sugar, but that all industries using sugar as a material have grown greatly, employing far more men and women than they did while sugar was high and its use was restricted. We do not say that these facts—if facts they be—are conclusive, but we ask if they must not be taken into account, and if a discussion of them is not more pertinent to Lord Pirbright's argument than his sneers at the blind followers of free trade dogmas. If the price of sugar be raised, will it not be raised at the expense of consumers? If one result be a revival of the refining interests, will not other results be the decay of interests using sugar as a material, which have been flourishing ever since France and Germany and Austria undertook to tax themselves in order to supply cheap sugar to England and the United States?

If the interests that flourish on cheap sugar, leaving the consuming public out of the account, equal or exceed the refining interest that flourished on dear sugar, then the only remaining interest that demands countervailing duties consists of the planters in the West Indies. In regard to them, an English ministry considering countervailing duties will have to ask itself whether the planting interest is so large that the home interest should be sacrificed to it, or whether the political interests of England in her West India colonies is so important that those colonies ought to be supported into a prosperous condition regardless of the cost to England.

This whole question demands a careful consideration of the various interests affected, and if Lord Pirbright and his associates are for countervailing duties merely because the West India planters are British subjects, and their government ought to create conditions of prosperity for them, then it is they who are the unreflecting followers of economic dogmas.

But retaliatory action, even if justifiable, may be at the same time superfluous and in vain. It may be superfluous because the bounty-paying countries are obviously wearying of the burden and are likely in a few years to discard it; it may be in vain because sugar is obtained in vast and increasing quantities from a plant of the temperate zone, the beet; the cultivation of the sugar beet can probably be enormously extended, and in view of that fact the culture of the sugar cane will probably never again be the lucrative business it was once.—*N. Y. Journal Commerce.*

Trade Notes.

The Lidgerwood Hoisting Engines and Cableways.—The immense amount of sugar cane now raised in Louisiana for sale to our great central sugar factories has led to the development of numerous devices for the easy transfer of this cane from carts to cars, and incidentally to the study of the whole ques-

tion of handling heavy weights with steam machinery. The Lidgerwood Manufacturing Company, of New York, whose advertisement appears in this journal, has for many years been prominent in the manufacture of hoisting engines, cableways and other devices for the rapid hauling of heavy weights. Some of our planters are now considering the matter of cableways for the transfer of sugar cane across Bayou Lafourche, and doubtless within a year or two this plan, so profitably applied in scores of other directions, will probably be utilized with equal success in handling sugar cane. For quick work in cane transfers it is found that hoisting engines are infinitely superior to horse or mule power, and the Lidgerwood Manufacturing Company is seeking to supply the demand of our sugar planters for first-class, quick-working engines of this kind.

Messrs. Woodward, Wight & Co., Limited, of New Orleans, have been made the Southern agents of the Lidgerwood Manufacturing Company, who, in connection with Mr. J. W. Dickinson, their sales agent, will be glad to give specifications and full particulars to every one desirous of inquiring into any of the labor-saving devices manufactured by this establishment. The company issues a general catalogue of hoisting engines; a book on the Lidgerwood cableways; a pamphlet on the Lidgerwood rapid unloader; another on the Temperley transporter and Lidgerwood transfer, and another on logging by steam. Any of these books will be mailed free to any one requesting them by writing directly to the Lidgerwood Manufacturing Company, New York, or to Messrs. Woodward Wight & Co., New Orleans, or Mr. J. W. Dickinson.

Machinery for Sale.—Elsewhere in this issue we advertise some machinery on the Belle Helene plantation, which is offered for sale by Mr. Geo. R. Reuss. Those in need of a mill or engine, Rillieux effects or pumps will do well to address Mr. Reuss, at Hohen Solms, La.

B. F. Avery & Sons.—We are in receipt of the following communication from this well-known firm, which explains itself:

LOUISVILLE, Ky., January 15, 1898.

The Louisiana Planter Publishing Company, New Orleans, La.:

GENTLEMEN—On the afternoon of the 13th inst., a small portion of our plant was damaged by fire. Fortunately the fire was confined to our polishing department, in which it originated.

All other departments resumed operation this A. M. and there will be absolutely no interruption in our business. The department which was damaged will be in operation in a few days.

It is impossible as yet to estimate the extent of the damage, but same will probably be between \$50,000 and \$75,000 to building, machinery and contents. A full line of insurance is carried on all items.

We particularly wish it understood that all orders will be filled without delay and that our large stock of finished goods is not damaged in the least; our warehouses not being touched, and consequently our customers may all depend upon the usual prompt shipment of their orders. Yours truly,

B. F. AVERY & SONS.

JANUARY 22.

WEEKLY MARKET REPORT.

1898.

	January 15.	January 17.	January 18.	January 19.	January 20.	January 21.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK	
SUGAR.									
Open Kettle.									
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Quiet.	
Strict Prime	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 2 1/2		
Prime	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 2 1/2		
Fully Fair	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 2 1/2		
Good Fair	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 2 1/2		
Fair	2 1/2 @ 3	2 1/2 @ 3	2 1/2 @ 3	2 1/2 @ 3	2 1/2 @ 3	2 1/2 @ 3	2 1/2 @ 2 1/2		
Good Common	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2		
Common	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	Very quiet.	
Inferior	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2		
Centrifugal.									
Plant'n Granulated.	4 1/2 @ 4 1/2	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	3 1/2 @ —		
Off Granulated	— @ —	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	3 1/2 @ 3 1/2		
Choice White	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —		
Off White	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —		
Grey White	3 1/2 @ 4	3 1/2 @ 4 1/2	3 1/2 @ 4 1/2	3 1/2 @ 4 1/2	3 1/2 @ 4 1/2	3 1/2 @ 4 1/2	— @ 3 1/2		
Choice Yellow	— @ 4 1/2	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	3 1/2 @ 3 1/2		
Prime Yellow	4 @ —	4 @ —	4 @ —	4 @ —	4 @ —	4 @ —	3 1/2 @ 3 1/2		
Good Yellow	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2		
Seconds	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	Strong.	
MOLASSES.									
Open Kettle.									
Fancy	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 20		
Choice	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	— @ 18		
Strict Prime	23 @ 23	23 @ 23	23 @ 23	23 @ 23	23 @ 23	23 @ 23	16 @ 17		
Good Prime	— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	— @ 15		
Prime	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 13		
Good Fair	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 12		
Fair	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 11		
Good Common	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 10		
Common	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 9		
Inferior	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 8		
Centrifugal.									
Fancy	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Steady.	
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ 9		
Strict Prime	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	— @ 8		
Good Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 10	— @ 7		
Prime	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 9	— @ 7		
Good Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 8	— @ 6		
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6		
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5		
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4		
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4		
SYRUP.	18 @ 22	18 @ 22	18 @ 22	18 @ 22	18 @ 22	18 @ 22	14 @ 16	Steady.	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 89	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Dull.
Centrifugals, 96 ^o	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	8.98 @ —	
Standard A.	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	8.86 @ —	
Cuba, 96 ^o , Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50 ^o	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	Weak. Flat.
A. & G. Beet	9s. 2½d.	9s. 8d.	9s. 8d.	9s. 2½d.	9s. 2½d.	9s. 0½d.	9s. 5d.	

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.40	Strong.
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.40	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 3.97	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 3.85	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	Jan. 12.....	Tons	223,503
At four ports of Great Britain to.....	Jan. 8.....	"	107,600
At Havana and Matanzas to.....	Jan. 12.....	"	17,775

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JAN. 21, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	1,071	41,713	4,186
Sold.....	1,071	40,482	4,186

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO JAN. 21, 1898.

	SUGAR		MOLASSES
	Hhds.	Barrels.	Barrels.
Received.....	16,103	1,136,313	160,120
Sold.....	16,103	973,858	180,180
Received same time last year....	24,051	1,067,386	185,017

JANUARY 22.

WEEKLY MARKET REPORT.

1898

RICE.	Jan. 15.	Jan. 17.	Jan. 18.	Jan. 19.	Jan. 20.	Jan. 21.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	2 25@4 00	Steady.
CLEAN, Fancy.....	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	
Choice.....	5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	5 @5 $\frac{1}{2}$	Active.
Prime.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	
Good.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	
Fair.....	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	4 @4 $\frac{1}{2}$	
Ordinary.....	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	
Common.....	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	
BRAN, $\frac{1}{2}$ ton.....	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 00@10 00	
POLISH, $\frac{1}{2}$ ton.....	15 00@—	15 00@—	15 00@—	15 00@—	15 00@—	15 00@—	16 00@17 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JAN. 21, 1898.

	SACKS ROUGH.	BBLs. CLEAN.
Received.....	11,860	879
Sold.....	9,979	2,560

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO JAN.
21, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BBLs. CLEAN.
This year.....	378,514	2,699
Last year.....	361,249	3,584

Sugar.

At the end of the week the sugar market was quiet, and only a moderate business was transacted. Receipts were rather limited.

Molasses.

The market for open kettle molasses was strong at the end of the week. Syrnps and centrifugals steady.

Rice.

The rough rice market was steady toward the end of the week. Arrivals were small and the demand fair. Clean was active, with fairly good demand.

St. James.

[CONTINUED FROM PAGE 54.]

anything for a change from rain. If occasionally we have to afford hospitality to the tail end of one of those "nor-wester" blizzards, let us rejoice in our lot that they arrive here shorn of their original fierce austerity. Under the above circumstances a sudden collapse in plantation industry is existent. The recent holidays have evidently rid some hands of the proceeds of the grinding season, and they will soon be in their habitual impecunious condition if the weather does not admit of work for any great length of time. The only thing going on now is the usual migration of the laborer from one place to another with his family and belongings.

It is understood that the rate of wages for field work will be increased to the amount of 20 cents more this year, and both employer and employee, of course, seem satisfied with the arrangement. It is a matter of congratulation that the relations existing between our planters and their employees are so thoroughly amicable, and labor riots are not among the difficulties we have to struggle against, as is sometimes the case in other industries.

There have been but few changes in the management of the St. James plantations for

1898, an excellent sign of the capacity and good work of overseers.

The most recent change is that of Mr. Charles Tircult, who has been an extensive rice cultivator of this parish. He has removed to Iberville, where he will manage Mr. E. Vicknair's new plantation.

Mr. E. D. Leche tendered his resignation as president of the police jury, at a meeting held last Wednesday. We have already mentioned his position in our parish as a leading man and worthy citizen, therefore we simply mention how deeply we regret his departure, as well as that of his estimable family, from

ST. JAMES.

A valued friend in St. James parish writes us, under date of January 19, that they are having very bad wet weather, and he fears that if it lasts a few days longer it will injure seed cane which is just starting to sprout. We trust he has seen the clouds roll away ere this.

Sacramento Beet Sugar.

A cablegram from London, received Wednesday, announces the success of the mission of Willard E. Green, who recently left for Europe in the interest of the beet sugar syndicate which has been negotiating for lands in the Sacramento valley. Satisfactory arrangements have been made, and all that remains is to secure the proper persons to cultivate the beets. Contracts have been signed by which 150,000 acres of land near Chico, Marysville and Red Bluffs have been secured, and the work of erecting three immense sugar factories will be started at once. The syndicate has a capital of \$15,000,000, and intends making the venture a success if money and experience can do it.

The land secured embodies tracts from the Glenn ranch, the Bidwell ranch, the Pheland estate and the Stanford estate, with other tracts in smaller quantities.—*San Francisco Call*.

Pacific Beet Sugar Company.

A few minutes before the county recorder closed his office for business Tuesday evening, Toland & Andrews, attorneys for Henry T. Oxnard, of the Oxnard Construction Company, recorded two important documents bearing

upon the Colonia beet sugar factory. The first document filed was a deed, whereby Henry T. Oxnard conveyed to the Pacific Beet Sugar Company, for a nominal consideration, the site of the proposed beet sugar factory and all buildings with machinery, etc., which is now in the course of construction by the Oxnard Construction Company. The second was a mortgage, dated at New York, December 17, 1897, for \$750,000, given by the Pacific Beet Sugar Company to the Oxnard Company.—*L. A. Times*.

Town of Oxnard.

The new town of the Colonia Improvement Company, near Hueneme, is to be named "Oxnard." The new town is now laid out and the prices of lots fixed, ranging from \$200 to \$350 each, according to size and location. About seventy acres have been laid out at first in business and residence lots, 230 acres remaining to be laid out in residence lots and one and two-acre villa lots later. This latter tract will be in beets this year. The officers of the company say they hope to make this a pleasant town for any one to locate in, and we expect to hear of the numerous Chino boys going up there doing some speculation on the side.—*Chino Champion, January 14*.

Mr. H. G. Morgan, Jr., of the Fairview plantation, which has the reputation of making one of the heaviest cane yields of the season of any place in Louisiana, was absent from the city during the past week on a visit to Fairview.

Mr. G. E. Gillis, manager of the Poydras plantation, on the Lower Coast, was in the city during the past week and stopped at the Hotel Royal.

Mr. F. E. Stuntz was the chemist again at Cinclare plantation, of Mr. Harry L. Laws, during the crop just ended.

Messrs. A. P. Devall and H. L. Devall, sons of that well-known gentleman, Mr. David Devall, had charge of the boiling department on the Orange Grove place during the past crop, and are evidently chips of the old block, judging from the magnificent results they secured.

Gov. H. C. Warmoth and Mrs. Warmoth were at the St. Charles as usual during the past week.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION AS YARDMAN OR GARDENER; can furnish reference. Address **GOTTLIEB KOELLE**, 1038 St. Louis street, city. 1-21-98

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address **U. WEBRE**, Central, La. 1-20-98

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. **MCCRACKEN BROS.**, Eola, La. 1-20-98

WANTED—POSITION AS STORE OR BOOK-keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address **MAX**, P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address **R. J. W.**, 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address **A.**, care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR AS-stant engineer; has had fourteen years' experience and can furnish first-class references. Address **F. O. W.**, 844 Baronne street, city. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address **H. L.**, 618 St. Louis street. 1-18-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address **156**, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. **GEO. H. DOUGLASS**, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTA-tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address **BOX 73**, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address **A.**, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address **ENGINEER 2020**, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address **P. O. BOX 422**, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address **P. S.**, 130 N. Franklin street, city. 1-13-98.

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address **W. C. B.**, 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—ENGINEERS WHO UNDERSTAND sugar, coffee and rice machinery, also sugar making, to travel and sell machinery in foreign countries; knowledge of Spanish language necessary. Address, giving references and state experience, **MANUFACTURER X**, care this paper. 1-3-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address **A. D. LACY**, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address **COMPETENT**, Box 649, New Orleans. 12-21-97

WANTED—POSITION AS ASSISTANT MAN-ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address **"OVERSEER,"** care of **A. Koehritz**, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address **E. O. W.**, Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN-Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address **A. B.**, 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address **C. LAURENT**, Whitecastle, La. 12-28-97

WANTED—ENERGETIC AND STRICTLY SO-ber young man wants position as manager of small store on plantation, on salary or commission; gilt-edge reference as to ability and character. Address **B. B.**, 1025 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address **W. T.**, care Daily Journal, Plaquemine, La. 12-23-97

WANTED—POSITION AS CLERK IN A COUN-try or plantation store; not afraid of work. Address **CLERK**, Postoffice Box 69, New Orleans, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt-edge references. Address **B. B.**, 1025 Bayou Road, New Orleans. 12-17-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address **R. V. H.**, 129 Decatur street, New Orleans. 12-17-97

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898, at living salary. Address **BOB**, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and Rapides parishes and some New Orleans merchants. Address **SMITH**, care this office. 12-16-97

WANTED—A FIRST-CLASS PAINTER, AC-customed to country and plantation work, would like to obtain work either by the day or contract. Address **BRUNO**, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address **E. C. MARSHALL**, Cheneyville, La. 12-7-97

WANTED—By a young lady of several years' ex-perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address **XY Z**, care **PLANTER**. 12-3-97

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address **B.**, care of **The Chief**, Donaldsonville, La. 12-3-97

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address **J. E. W. DAVIS**, McCall, La. 12-1-97

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The "Upper Elmer" place, Iberville parish, right bank, near Bayou Goula; 700 acres in cultivation; 80 acres first stubble, 75 acres second stubble, seed cane for 205 acres; all lands plowed ready for cane and corn; 43 fine mules; full supply of carts and implements; open kettle sugar house with bagasse burner; steam train and centrifugals. Apply to **Harrell & Koch**, Bayou Goula, La., or **Levert, Burguiere & Co.**, New Orleans.

There is offered for sale on the "Arcadia" Plantation, situated on the Thibadesux Branch of the Southern Pacific Railroad, one double-gear, six (6) roller Mill and engine, complete. Both mills 4½ ft. long; engine, 48 x 20 inches. The back mill has had but one year's use, having been erected in 1896. Both mill's, the engine, the gearing and everything belonging thereto in good condition. All carrier chains, slats, friction clutch, etc., complete, and the entire outfit offered at a bargain. For price and further particulars, address

W. H. PRICE, THIBADEAUX, LA., OR
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In order to increase our capacity, we offer for sale one Six Roller Mill, Gearing and Engine. Front Mill 4 ft. 8 in. by 28 in., Niles make; back Mill 5 ft. by 32 in., Fulton Iron Works make (new). Also Rillieux Effects, capacity 350 tons per day, with Pumps complete. All on Belle Helene Plantation.

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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No. 5.

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AND

SUGAR MANUFACTURER,

OFFICIAL ORGAN OF THE

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Ascension Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.*

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ical, Political and Commercial.

EDITORIAL CORPS:

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Molasses for Stock Feed.

As many of our planters are now running out their low grade sugars there may be a considerable supply of centrifugal molasses in the State which it is a pity to lose, as has been so generally the custom of late years. Many of our planters are selling this molasses at about a cent a gallon, or say 1-12 of a cent. per pound, when it is worth to them as a stock feed six or eight cents per gallon, or a half to two-thirds of a cent per pound. There is scarcely any other article of stock feed that is so nutritious, so fattening and so valuable on the plantation as a full supply of molasses for live stock. Whatever can not be consumed on the plantations themselves ought to be returned to the various cane farmers who furnish canes for the factory, thus enabling them to produce their cane more cheaply by saving to them the cost of expensive stock food from the other States.

The fact of the matter is that what little demand there now is for Louisiana molasses at this 1 cent per gallon that is offered for it, comes from Europe, where it is sought as stock feed at a cost many times greater than its salable value with us. It should be obvious to every one at all interested that if the English farmer can afford to send to Louisiana for molasses on which to feed his hogs and cattle in England, it ill becomes the Louisiana farmer or planter to throw his molasses into the ditch or to sell it for but little more than one-tenth of its value, simply to save the annoyance of providing tank room and facilities for holding this supply of local food during the season.

Almost every planter in Louisiana could consume all the molasses he produces during the coming twelve months if he had facilities for holding it in reserve and then dealing it out to his own stock and to his neighbors who supply him with cane just as it may be needed. The old adage says that a

word to the wise is sufficient, and, although we must admit the wisdom of our planters, the words that have been uttered as to the value of molasses as stock food seem even yet hardly to have carried conviction to all of those interested. A prominent planter told us, some two or three months ago, that he was then throwing his molasses into the ditch simply because he had no tank room and could not get any offer for the molasses in the city. Such a disposal of molasses would seem absolutely reckless, and yet there are conditions under which this had to take place. Iron tanks are cheap and wood cisterns are cheap. The molasses is valuable for stock feed; thousands of mules, horses and cattle have had but little other food during the past year and have done well, and we should hope that the days of one-cent or two-cent, or even five-cent molasses will rapidly pass away from Louisiana.

Secretary Wilson and the Sugar Industry.

The appointment of Secretary Wilson to a cabinet position as head of the Department of Agriculture was hailed with delight by the sugar producers of the United States, his keen interest in the sugar industry while he was at the head of the Iowa State University leading us all to believe that in his new position he would do all that he could to promote the development of the American sugar industry.

After taking his position as a member of President McKinley's cabinet and at the head of the Department of Agriculture, Secretary Wilson immediately gave evidence of a continuing interest in the sugar industry, and seems to have made every effort to develop the beet sugar industry in those States where there was a promise of success. All that he did in this direction could not do other than meet our hearty commendation.

Now, however, we have another story to tell. It seems that Secretary Wilson has fallen under the blighting influences of the Hawaiian lobby in Washington; has yielded to the languorous influences that come from these distant tropic isles and longs for their annexation, for their union with our body politic. He has gone so far as to argue that the virgin soils of Hawaii are becoming rapidly exhausted from the non-use there of fertilizers. He seems to have forgotten that the Department of Agriculture, over which he is presiding with such distinguished ability in every other direction, devotes itself throughout its many experiment stations to directing and teaching the use of fertilizers in the United States for the purpose of improving and maintaining the fertility of the soils in these States, which have been impoverished by long cropping and lack of care. Secretary Wilson's argument concerning the exhaustion of Hawaiian soils is really without weight, because it would apply equally to any other agricultural country in the world.

Secretary Wilson argues that with the annexation of Hawaii, its present semi-slave system would vanish. If this were so, we may be assured that Hawaii planters would not be so willing to have their islands annexed to the American Union. If they can secure a sufficiently strong lobby in Washington to effect the annexation of Hawaii to the United States, they certainly expect in some similar manner to secure advantages in regard to their labor system which will enable them to practically continue it. It may be said that indentured labor is in antagonism to the Constitution and laws of the Federal Union, but with these islands 2000 miles away, Federal laws and the Federal Constitution would have but little effect upon an active and able people who have been able to wrest the whole Hawaiian dominion from the many thousands of natives who claim it as their own.

These subtle influences in Washington that seem to have so affected our national Legislature as to make annexation possible, or even probable, are worthy of investigation. If investigated it would be found that it is the American capital invested in Hawaii that is thus affecting the judgment of Congress. If these capitalists are willing to put their money in distant Hawaii

they should take the chances, and not call upon the American government to seize these islands and annex them simply because they have chosen to make their venture there. The United States has many times more capital invested in Cuba than in Hawaii, and the same line of argumentation would lead to propositions for the annexation of Cuba, and yet we hear but little of that, at least but little at present. The whole Hawaiian annexation scheme should be looked upon with suspicion, and its annexation would certainly be very detrimental to the sugar interests of the United States.

Beet Sugar Analysis.

The great interest that is now taken in the beet sugar industry throughout the United States is creating quite an inquiry into the chemistry of beet sugar, the methods of its analysis and all incidental data. In order to meet this want Mr. E. C. Hamilton, of Chino, Cal., has recently published a handbook on Beet Sugar Analysis, being a complete system of instruction for analysis in beet sugar factories by Elwood C. Pfeffer. Mr. Pfeffer has been engaged with the Chino Valley Beet Sugar Company for a number of years in chemical work, and this handbook of which he is the author can thus be depended upon to give working methods, the result of practical experience in the United States and not simply a repetition of European methods. Mr. Pfeffer in his preface gives an extensive list of the works of reference which he has consulted in preparing this handbook, but we consider his adaptation of it to the work in California as being one of its great merits. In some way we find that our American methods generally diverge from those practised in Europe, and, we think, diverge for the better.

What we need is an American way of doing things which is usually fully as effective as the European plan and generally done by some shorter cut.

The table of contents covers the instruments for analysis and their uses, the general methods of analysis, individual sugar analysis, the analysis of lime and the determinations of alkalinities and saturation gas; the analysis incident to the Steffen process; the determination of invert sugar and raffinose.

This is followed in part second of the book by an analysis of the supplies and other chemical work incident to the industry, including the apparatus for chemical analysis, water analysis, limestone analysis, coal, coke and fuel oil; the analysis of boneblack, chimney gases, fertilizers, refuse lime, syrup or masse cuite ash. This is followed by a chapter on the preparation of reagents and the various tables that are used in the sugar industry.

Altogether we have in it a handsome volume of more than 200 pages, every one laden with data essential to the expert in sugar analysis. The publisher, Mr. Ernest C. Hamilton, of Chino, Cal., will supply the book at \$2.50. Orders left with THE LOUISIANA PLANTER will be speedily filled.

Bouchereau's Louisiana Sugar Report.

This valuable publication, giving full details direct from the plantations, of the entire crop of 1896-97, while delayed in its appearance a little longer than usual, owing to the difficulty incident to collecting such data, comes to us in its usual handsome shape and as complete and thorough as ever. So far as we know, nowhere else in the world is such a compilation made of the actual sugar production, taken plantation by plantation and parish by parish, and compiled annually and compared with the previous years, thus showing the growth of the industry and in which direction such growth appears.

In his final resumé of the sugar situation in Louisiana, Mr. Bouchereau says that there were but 395 sugar houses in operation in the year 1896-97, a decrease of 29 from those in operation in the previous year. This is an indication of the continuing concentration of sugar manufacture into larger establishments, where the product can be turned out with less incidental cost and hence a greater certainty of profit. Twenty years ago there were very few vacuum pans on the plantations in Louisiana. The disastrous experiences of 1877, the result of the great storm in September of that year, and a subsequent early freeze rendering it almost impossible to make any sugar from the cane during the month of December, led to the erection of some fifteen or twenty vacuum pans on the plantations the following

summer—that of 1878. At that time this was considered a remarkable advance. We now find that out of the 395 sugar houses in operation, 230 make sugar by the vacuum pan process, and 165 of them, generally the smaller ones, only retaining the old open kettle or open train process. What may seem a little odd in this connection is that there are still eleven horse-power sugar houses. When we consider that the West Indies are full of horse-power and cattle-power and wind-power sugar houses, the continuing work of these eleven in Louisiana may not seem so singular. Apart from this, however, is the fact that in the Gulf States there are tens of thousands of horse-power cane mills manufacturing but little sugar, however, but enormous quantities of cane syrup, which finds large use for direct consumption in the communities where it is made.

The 230 vacuum pan sugar houses of the State have averaged 1200 short tons of sugar production each, while the open train houses average but 191 short tons each. When we remember that the 400 sugar houses in Germany average 3000 long tons of sugar production each we may see how far we still remain below the German average in sugar production per factory. The total production of the State for the year 1896-97 reaches 316,000 short tons of sugar, although we are inclined to think this is a slight overstatement of the case, as Mr. Bouchereau's allowance of 3 per cent. for cistern and tank bottoms is scarcely as accurate now as years ago, in the open kettle days, when immense quantities of such material came to market. The vacuum pan houses now work up all of their own tank bottoms, and such sugar being included in their reported production, it seems hardly accurate to add the customary 3 per cent. to the tabulated yield to cover these non-existent sugars.

We give below the sugar production in short tons of some twenty-three of the sugar parishes in the order of quantity. It is as follows:

	Tons.
St. Mary.....	60,436
Assumption.....	32,385
Lafourche.....	30,477
Terrebonne.....	29,603
St. James.....	25,950
Iberville.....	23,832
Ascension.....	23,339
Iberia.....	16,253
St. John.....	12,637

West Baton Rouge.....	12,425
St. Charles.....	9,479
Plaquemines.....	8,886
Pointe Coupee.....	4,544
Jefferson.....	4,301
St. Martin.....	3,985
Rapides.....	3,636
East Baton Rouge.....	3,544
St. Bernard.....	1,616
Lafayette.....	1,549
Orleans.....	1,385
Avoyelles.....	1,114
Vermilion.....	993
St. Landry.....	481

It will herein be seen that St. Mary leads the van, with nearly double the production of any other parish. That out of a total production of 316,000 short tons, the interior parishes of St. Mary, Assumption, Lafourche, Terrebonne and Iberia produce over one-half, thus verifying THE LOUISIANA PLANTER'S prophecy made a few years back that the centre of the Louisiana sugar industry would proceed westward steadily until its centre would reach Lafayette. It will be seen that the parish of Ascension, which we have always, and properly, considered the grandest sugar parish in the State, owing to its enterprising planters, eligible location, and fertile and well protected lands, now stands but seventh in the list of production. The large production of Assumption, Lafourche and Terrebonne reflect the enormous development of the central factory interest in those parishes, as well as in St. Mary, whose 60,000 tons production places her at the head of the list.

With the recurrence of five-cent cotton, it requires but little prophetic ability to say that the parishes of St. Martin, Rapides, Lafayette, Avoyelles, Vermilion and St. Landry, which now rate so low in the list, will rapidly rise to higher relative positions, and we believe that, even within the limited time intervening before the appearance of the twentieth century, they will startle us with their enormous development in sugar production. Those parishes have the lands and the people who are desirous of engaging in cane culture. The central factories are now being built for them and each year will indicate an increasing production there.

All those who desire a copy of Mr. Bouchereau's valuable work can procure it for \$3 at the office of THE LOUISIANA PLANTER, or by applying to Mr. Bouchereau direct, P. O. Box 1767, New Orleans.

The Louisiana Outlook.

Wet weather, and too much of it, has been the prevailing meteorological feature throughout the sugar district during the past week, and as the temperature has been high, reports of the sprouting of seed cane are coming in, our Iberville correspondent reporting fully 20 per cent. of it sprouted. All field work is necessarily at a standstill, and the planters are waiting anxiously for some dry weather to permit them to resume operations.

The World's Sugar Crop of 1897-98.

Mr. Licht, the well-known German sugar statistician, in compiling the latest data, now estimates the sugar crop of 1897-98, as follows:

BEET-ROOT SUGAR CROP.		Estimate. 1897-98: Tons.
Germany.....	1,850,000	
Austria-Hungary.....	840,000	
France.....	825,000	
Russia.....	750,000	
Belgium.....	225,000	
Holland.....	125,000	
Other countries.....	190,000	
Total beet root.....	4,805,000	

CANE SUGAR CROP.		
Java.....	560,000	
Louisiana.....	345,000	
Cuba.....	200,000	
Hawaiian Islands.....	200,000	
Philippine Islands.....	190,000	
Brazil.....	180,000	
Demerara.....	110,000	
Mauritius.....	110,000	
Egypt.....	100,000	
Antilles.....	95,000	
Peru.....	65,000	
Porto Rico.....	60,000	
Trinidad.....	50,000	
Barbados.....	50,000	
Guadeloupe.....	40,000	
Reunion.....	40,000	
Jamaica.....	35,000	
Martinique.....	30,000	

Total sugar cane..... 2,460,000

Grand total..... 7,265,000

Mr. R. W. Boland, of the Birmingham Machine and Foundry Company, of Birmingham, Ala., was a guest of the Grunewald Hotel during the past week.

Mr. Louis Kramer, owner of the Frances plantation in St. Mary parish, was in New Orleans for a day or two during the past week.

Mr. Valentine Schwann, owner of the Germania plantation in St. Mary, which is one of the best managed and most successful places in the State, paid New Orleans a visit a few days ago, and left on the Louisville & Nashville for over the lake.

Mr. Joseph Birg, of St. Mary parish, was a guest of the St. Charles Hotel last Wednesday. Mr. Birg is quite a frequent visitor to the city.

Col. Geo. E. Mann, of the Stella plantation, on the lower coast, paid us an appreciated visit during the past week.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: A week of very bad weather has been our portion during the past hebdomedal period, and plantation work has been in a virtual state of suspension in consequence. The roads are in a horrible state, as they always are in good sugar soil after a rainy spell, and people who are compelled to travel over these thoroughfares just now are by no means to be envied. The road problem is one of ever recurring importance and vexation in this part of the State, and the man who devises a system by which Louisiana mud can be made readily navigable in the rainy season has fame and fortune awaiting him.

The enforced suspension of operations on the plantations has spoiled the chances for compiling a new letter this week, and, therefore, "Ascension's" screed to-day will be the soul of wit, at least so far as brevity is concerned.

The managerial changes which took place in this parish simultaneously with the advent of the new year are thus recorded by the *Donaldsonville Chief*:

Mr. J. Clement Mire comes from Made-wood, in Assumption, to succeed Mr. Louis J. Landry at Germanla, and Mr. Landry goes to Rodrigue in place of Mr. Paul Bouchereau. The latter gentleman succeeds Mr. Fulgence Bourgeois at Crescent.

Mr. L. M. St. Martin gets an assistant at Pellico, Arlington and Bar Harbor in the person of Mr. Alcide Arceneaux, formerly assistant at Germanla.

Assistant T. D. Jackson has left New Hope and returned to Alabama, and his place as Mr. J. W. Tucker's aid will be taken by Mr. A. S. Crawford, who has heretofore been Mr. T. S. Robbins' assistant at Ascension. A young man named L. W. Leonard—a stranger in the parish—will succeed Mr. Crawford at Ascension.

Mr. Dan. A. Blouin has given up his place as assistant at the Miles Co.'s Donaldson place and goes back to Iberville. He is succeeded at Donaldson by Mr. Horace W. Green, heretofore assisting his father at Cottage farm.

About the only change in the ownership of plantation property in the parish which has come to the knowledge of your correspondent is the acquisition of a half interest in the Linwood place by Mr. C. D. Gondran, of the Belle Helene store, who will be henceforth associated with Mr. J. N. Brown in the ownership and management of the place.

Mrs. L. P. Von Hofe, of Darrow, is offering 300 acres of excellent sugar land, near that place, for sale or rent on very favorable terms, and whoever secures the property is almost sure to do well. A tramway to a large factory traverses the place, offering all the desired facilities for getting cane quickly and easily to the mill.

Speaking of factory reminds me of the report that the Belle Helene house has to be enlarged and equipped with the best class of machinery in anticipation of the much greater amount of work the establishment will be called upon to perform in the future. It is a pity some enterprising and far-seeing planter or manufacturer doesn't make a ten-strike for himself and confer a boon upon the people of the fertile New

River section of the parish by tapping that region with a tramway, or, better still, a full-sized railway, so that the several hundred of small farmers there who are grubbing along with five-cent cotton would be given a favorable opportunity to get out of that rut into cane culture. The Gramercy and Illinois Central managers have a first-class chance here for a profitable investment by building a few miles of tap road into the New River country from the main line of the Mississippi Valley road.

Next Tuesday will be the first of the month, and perhaps the A. B. S. P. A. will muster a quorum.

Col. J. E. St. Martin, one of our most worthy and successful cane planters, was deservedly honored by the stockholders of the Bank of Donaldsonville last Tuesday, having been elected by unanimous vote as a member of the board of directors of that institution. The other members of the board are Hon. Henry McCall, Dr. W. M. McGallard, Messrs. G. M. Bowie, Adolphe Netter, Chas. Maurin, S. Goette, C. Kline, L. E. Bentley, L. J. Brun and Nicholas Eris. The board will meet next Tuesday at 9:30 A. M., to choose officers for the ensuing year.

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been very unfavorable for the planting interests for the past two weeks, and a large quantity of rain has fallen. Mr. Michael Schlatre, of the Enterprise plantation, reports the rainfall since the first instant at twelve inches. This and the long spell of warm weather are getting in their work on the seed cane, fully 20 per cent. of which is badly sprouted. No field work was possible this week except ditching and some ploughing of rice land. All agree that the latter work is more effective when done in dry weather, but many who have large areas to break up feel that they can not wait on the weather and have inaugurated their work. The acreage planted in rice this year will exceed that of 1897 by about 20 per cent.

Mr. Louis Danos, of Ascension, who has contracted to buy the interest of Mr. Joseph A. Grace in the Milly plantation, moved up last week and has taken charge of the field operations. Mr. Danos is a planter of ability and signal energy and good reports may be expected from Milly. Mr. Edwin H. Comeaux, manager of this place, has moved into Plaquemine and is on the lookout for a situation. There is not a better cultivator in the parish than Mr. Comeaux and he will not be long idle.

Cedar Grove's output for 1897 was 3,750,000 pounds, and her neighbor's, the Catherine's, was the same. It is probable, from the large acreage being put in cane in the rear of these places, that the output of each will exceed the 5,000,000 mark this year.

Mr. Frederick D. Robertson, of Plaquemine, has contracted to sell the large crop of cane he expects to raise on Homestead this year to the Cinclare central factory, of West Baton Rouge. Besides paying a good price in addi-

tion to the freight charges, Mr. Laws, of Cinclare, is offering splendid inducements in the way of advances on reasonable terms. For instance, to some of our people he offers money in sums of \$1000, as needed, to be repaid out of proceeds of crop at the rate of 8 per cent. per annum. There are no commissions charged, only interest at 8 per cent., and that only for the time the money is actually used. This is an inducement, and it will fetch many tons of cane to Cinclare.

Messrs. Babin Bros., of St. Gabriel, will cultivate a part of the Indian Camp plantation, as well as their own tract, in rice.

Mr. Martin P. Peterson, of Plaquemine, has renewed his lease of the Long Point plantation with Mr. Edward Desobry. A part of this place is high and sandy, and Mr. Peterson expects to plant cane this week in spite of the rains.

Hon. Andrew Caneza, mayor of Plaquemine, was buried at that place last Wednesday. Mr. Caneza was well and favorably known to the planting fraternity as a bricklayer and sugar maker, in both of which callings he excelled. He held during his life many responsible positions and was a good citizen. He leaves a widow, a daughter of the late Judge Zenon Labarre, and three children.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: Just at the present time there is a painful dearth of interesting happenings in local sugardom. This is due more to the beastly weather of the past three weeks than any other cause.

The first week of the current month was bright and clear, and was taken advantage of to the utmost, by those planters who had finished grinding, to plant cane. Rain set in on the 10th inst., and has continued almost without intermission since that time. It seems impossible for us to get more than two days' sunshine at a time. As a natural result of these unfavorable conditions little or nothing is being done on the plantations. Indeed, it is impossible to do anything. Of course everybody would like to be planting, but the ground is too wet to permit such work. Field operations are therefore quite backward. While there has as yet been no cold to injure plant or stubble, it is feared that a continuation of the present rainy spell will work more or less damage, particularly to the plant. Before the water from one rain has time to run off, another shower comes and replenishes the supply. So far, however, no complaints of defective plant or stubble have been heard.

Orange Grove, the last factory in the parish to finish grinding, would have wound up the season's run to-day (Wednesday) but for the breaking of the cane knife. I understand that Mr. Devall will have the knife repaired in order to finish grinding, but he has so little cane to be worked up he may conclude not to start the mill again.

The rapid rise in the Ohio and Upper Mississippi is causing more or less uneasiness among our people, whose memory of last year's flood is yet painfully vivid. Our levees are in

fairly good condition, but it is earnestly hoped they will not be subjected to a repetition of the strain put upon them by the flood of 1897.

The regular annual meeting of the police jury was held to-day, and much important local business was transacted. The meeting attracted a large number of planters from different sections of the parish.

Hon. Martin Glynn, a prominent Pointe Coupee planter, visited Port Allen last Wednesday.

Mr. H. Wilkinson, of Poplar Grove, spent several days in New Orleans this week.

Frost and ice were in evidence here last Sunday morning. *Apropos* of which the traditional oldest inhabitant is vainly endeavoring to recall such a mild winter as the one now prevailing.

A great deal of woodland has been cleared up during the past year in

WEST BATON ROUGE.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Of late the weather has been such that virtually nothing has been accomplished in the fields in the way of preparations for plantings of either cane or corn—the frequent precipitations keeping the soil saturated.

The dense banks of clouds which have recently passed northward from the gulf will, when precipitated, tend to fill the already rapidly rising streams, and a full river may be seen at an earlier date than usual.

Planters are more hopeful than at this time last year, as sugars are higher priced and the prospects for better prices are seemingly good, as there are now greater hopes that the bounty system will be abandoned in Europe at no very distant date, under which changed conditions home consumption would increase, and there would consequently be an increasing demand for sugar.

Many factory owners begin to realize that the cost of manufacture must be reduced to a minimum, and much study is now being given to the solution of perplexing problems confronting proprietors. To select the proper apparatus and equip an up-to-date factory is beyond the ken of most men, even those who are deemed experts; one may be well versed in the requirements of the milling plant, but entertain very erroneous impressions as to boilers and the economy of steam. One may safely hazard the prediction that in from seven to ten years the machinery in nine-tenths of the factories in the State will be utterly valueless.

Men of talent the world over are investigating, and improvements are from year to year being made in the machinery pertaining to sugar manufacture. The plant of the future will be powerful, efficient, and as nearly automatic as possible, metal being cheaper in the aggregate than fuel or labor.

Through the courtesy of the author the writer has recently perused "Sugar Cane" by Dr. W. C. Stubbs, a work which should be carefully studied by all who are interested in the tropical cane sugar industry. Much of it has appeared in a different form in THE PLANTER,

but in the book the information is in a condensed form and can be readily referred to, as the different operations of the field progress from planting to harvest time. That portion of the volume which is worthy of the most careful study on the part of cane growers, is that which refers to the utter futility of fertilizing badly drained fields with the expectation of realizing the benefits which should accrue from the expenditure. To drain effectively is to fertilize cheaper than to buy manure.

Wednesday of last week was threatening in the morning, with showers in the afternoon; Thursday, fair in the morning, light shower later; Friday, cloudy, with thunder and lightning at nightfall; Saturday, light showers; Sunday, variable; Monday and Tuesday, showers, and Wednesday morning, clear and cold, with the prospects of fine weather for at least a day or two.

The official weather report from Schriever is as follows:

	Temperature.	Rainfall.	Sunshine
January	17.62.8	35.2	.....
"	18.61.8	43.0	.....
"	19.68.7	46.0	1.86
"	20.72.8	39.7	.38
"	21.65.0	40.0	.....
"	22.67.8	42.2	.29
"	23.71.5	36.0	.19
	67.2	40.3	2.72

TERREBONNE.

Vermillion.

[Special Correspondence.]

Editor Louisiana Planter: About all there is in this country to write about now is rain, rain, rain, for it rains both day and night, and it is an utter impossibility to get out to learn the little news that is drifting about. There has been an abundance of water on the prairies here for several days past, and the few people who came to town would often have to swim their horses to get here. The immense amount of rain that we have had for the past week is responsible for this state of affairs. The oldest inhabitants say that they have never seen so much water on the ground before at one time. All farm work is at a dead standstill and likely to remain so for several days to come.

A great many of our cane growers are complaining about their seed cane spoiling in the windrow. This they attribute to the overabundance of rainfall, which has completely sogged the land and caused the cane to rot. It is to be hoped, however, that the damage will not be sufficient to materially affect the acreage. The small cane planter is entertaining great anticipations and building huge hopes on the coming crop, and the price that he will receive for the same; with the Dingley bill in full blast, and with stanch men at his back to assure him that he can readily dispose of his crop, as the farmers in this section have, and receive therefor the highest market price obtainable, he can with satisfaction discharge his daily labors, smoke his pipe of contentment at evening, and repose with ease and satisfaction on his easy couch during the night. There is no longer a fear that an over-production will cause the loss of a crop, for the mills have already assured them that they will want in

the neighborhood of 200,000 next season, and they are ready to contract for it now, if necessary.

Messrs. Hall & Slutz are making rapid progress on their irrigating canal between the show-ers, and if nothing material hinders them they will be in shape to irrigate rice by the 15th of March or 1st of April. These gentlemen have push about them and don't know what the word fail means. They will put in about 2000 acres of rice as an individual crop this year, and will furnish water for about 2500 acres more for parties who own land along the canal. Your correspondent is reliably informed that the Gueydan Canal Company is perfecting arrangements to make the improvements and extensions to their canal that were mentioned in last week's PLANTER.

Mr. O. M. Nilson, of Mansfield, La., who is largely interested in the sugar business of this parish, came over the I. & V. Railroad Sunday last. The object of Mr. Nilson's trip to Abbeville just now is to close up a deal that he has recently made for a large sugar plantation one mile south of town, and on which he proposes to erect a refinery at no distant day. He will not as yet give out anything definite about his future plans more than to say that he purchased this place for the purpose of erecting a large central refinery thereon.

Mr. Desire Delcambre, of Delcambre, and one of the largest sugar planters in the eastern part of Iberia parish, was on our streets Monday. Mr. Delcambre will increase his acreage at least 300 per cent. this year.

Mr. John B. Wright, of Cayuga, Ind., came in last week to look after his interests in this parish. Mr. Wright has both cane and rice interests here.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: At this time it begins to look like this month was going to be a record breaker, in so far as wet weather is concerned. There have been but few clear days since the first of the month. It has been raining almost incessantly in torrents, frequently for a whole day, filling the earth with water to such an extent that it is found to be the next thing to the impossible to get out and do any sort of field work whatever.

The bayous are all about full, consequently drainage is more or less held in check until such time as it may require for the water to drain off through the swollen bayous and sloughs.

The planters were never more anxious than they are to-day for better weather, as there is no lack of work needing to be done before planting can be profitably carried forward; therefore it is naturally worrying to those who have work which needs to be performed.

Should next month prove to be wet and disagreeable as this has been, planting will be as late as it was last year. Very little cane has been planted to date. Judging from the amount of seed cane put down last fall, the planters will, when it does come on a spell of fair weather, have to start increased forces to plough and plant to finish in due season.

Ex-Congressman A. B. Irlon, of Eola, will,

so I am informed, plant some forty or more acres of corn this spring on his Eola plantation.

Mr. Jeff. Caldwell, of Eola, has seed in reserve to plant several acres to cane this year, with the intention, if I am not mistaken, of planting largely to cane a year hence.

Information received from reliable sources states that quite a number of planters and farmers in the neighborhood of Cheneyville and Theoda contemplate returning to cane growing just as fast as it is possible for them to obtain seed with which to plant their fields. The country around Cheneyville is naturally a cane producing country. The soil is of a rich alluvial loam, light and easily cultivated, and when planted to cane will yield from thirty to forty tons of cane per acre, with the application of no other fertilizer than the cow pea.

Situated on Bayou Boeuf, which affords at all seasons of the year an abundant supply of water, for both farming and manufacturing purposes, Theoda, at the junction of the Alexandria branch of the S. P. Railroad with the T. & P. system, is fast growing in population, as well as business enterprises. Only a few years old, it shows what the pluck and energy of one man can do when he has the will power to move to the front and keep there.

Mr. Geo. W. Bennette is the moving spirit in this instance, and knows no such word as fail, and to him is due all honor for the growth and progress of the beautiful town of Theoda, named in honor of Mrs. Theoda Bennette.

Mr. Bennette has a fine home and plantation some five miles south of Theoda (P. O. Bennette), and is engaged in merchandising and planting, growing such crops as cane, corn, pease and cotton.

There is some agitation now going on in regard to building a sugar factory on either Mr. C. F. Knoll's Ellen Kay plantation, or Mr. A. D. Havard's Boonville plantation, adjoining. Either place is admirably situated for factory purposes; in fact, I may say, that there is none better for the profitable manufacture of cane into sugars.

Marksville, our parish capital, is to hold an election on March 1 to decide whether or not to pay a five-mill tax for ten years to the construction of the Baton Rouge & Central, Louisiana, Railroad. If this road is built, it will boom Pointe Coupee parish, and finally bring the citizens of that parish back to their first love, cane growing and the manufacture of sugar.

Since commencing to write it has been reported to THE PLANTER's scribe that seed cane in some places is beginning to sprout too freely in the mat, attributed to excessive warm rains, which causes some apprehension on part of the planters of damaged seed cane. As I go to mail this letter it is raining. ERIN.

St. James.

[Special Correspondence.]

Editor Louisiana Planter: Rain and mud and slush, the legitimate belongings of January weather, was the regular programme for the past week. Since our last bulletin we have had an uninterrupted spell of mean, unbearable weather. Yesterday at noon the elements made

a somersault and landed us in a cold and bright atmosphere, with the uncertainty of knowing how long we will be thus favored.

The wise and prudent planter, however, may be seen after a heavy rainfall riding over his lands, and, with the surface water for his guide, silently taking the levels and mentally planning for the future improvement of his drainage. Others, again, may be seen in the wind-row carefully pulling out a stalk of seed cane here and there, eagerly glancing at its general condition from end to end, then with the aid of the thumb nail and both eyes closely examining the buds to see whether they are shrunken or swollen, or still in a dormant condition. Some planters have discovered a few sprouted stalks, and others who have done a few days' planting report seed to be fine. The condition seed cane is in when planted is not the principal virtue required to ensure a real good stand; two other necessary requisites to attain that end are, first, the kind of weather it is planted in, and the condition of the soil to receive it.

The bad condition of the roads has often been commented on, but under the present circumstances it is difficult to adequately express in what a plight they are now.

Much apprehension is felt in this part of the parish on account of the new levee now being built on Pike's Peak and vicinity. Very little work has been done on the ends, besides many gaps to be filled in different parts of the levee. With swollen streams just above us and our river on the rise, we can not help but feel shaky. There has not been much favor shown in the building of the above levee, as, besides bad weather, the contractors have had other *contretemps* to overcome.

Mr. J. Foxhall, employed for many years on Point Houmas plantation, will replace Mr. E. Schexnaldre on Pike's Peak. Another removal was that of Mr. E. Bourgeois on the Hester plantation, heretofore employed on Vera plantation.

The Graugnard Bros. are still spreading out and we are pleased to note that they seem to have a penchant for St. James plantations. Their latest acquisition is the purchase of the M. B. C. plantation from the J. Tessier estate.

Mr. J. Henderson and his estimable wife paid a flying visit to their son, of Bessie K., last week.

Messrs. Sobral and Tucker, of Oak Alley, two of our tame sports, paid New Orleans a brief visit in each other's company, but the weather was not in their favor and knocked most of their plans in the head, whatever they were, and they returned home thoroughly disgusted.

ST. JAMES.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: Since last your scribe wrote to your valuable paper, the heaviest rainfalls that have been seen in a long time have visited our section. The past two weeks have been a series of bad weather intermingled with a little sunshine and strong winds, followed by a slight fall in the thermometer, and all ideas of early planting have

been abandoned for the present, until a fairer condition occurs, when all field work will revive. To-day (Wednesday) not a fairer day could be desired, as no clouds have been seen; still according to a great many signs we fear the approach of a coming rain. Great apprehensions are felt for a general sprouting of trees and cane seed, owing to the very mild weather we are having, which is not much of a January type, which could possibly be followed by a severe cold and cause great injury to vegetation in general.

Everything is on a standstill, and even the mercantile travelers are complaining of such a total drop in work.

The all-interesting question of the day which is almost causing alarm is the rapidly rising river. Work is now being done at the Nita crevasse, and the contractor has fears of not being able to terminate the necessary work on this levee before the arrival of the river to where the work is being done.

Mr. Alcide Melancon has accepted the position as levee inspector for St. James parish.

The St. Rose plantation, owned by Messrs. Rolling & McFarland, has been sold to Messrs. Keller & Hargis, of Convent, for the sum of \$27,500. Mr. Rolling, we are told, expects to remove and establish himself and charming family in New Orleans; his departure will be greatly regretted by his many friends. We understand that the new proprietors of St. Rose will put up extensive repairs in the sugar house and all necessary work for a good cane crop will be done.

It was but last week that the great Gramercy factory terminated its long and eventful grinding, having realized over 11,000,000 pounds of sugar.

We are pleased to hear of the removal of Mr. Jos. Malarcher, of New Orleans, to St. James, having accepted the position of assistant overseer on Mr. B. H. Pring's Oneida plantation.

The plantations of Iberville parish seem to be altogether "For Sale," as they are greatly in demand, and many of St. James' planters have either purchased or rented some of them, while others are on the way to close negotiations in the same place, happily not necessitating the removal of all the interested parties.

CONVENT.

St. Mary.

Every planter in the parish has finished sugar making. Camperdown, Linwood and Maryland were among the last to finish, but none of them lost any cane. While the results were not as great as hoped for, still no one has a right to complain, yet some would do so if they owned the world. It can safely be estimated that the average will amount to at least 30 per cent. in excess of last year, because a sufficiency of seed has been put aside to bring it up to that limit. St. Mary continues to increase her lead as one among the most progressive parishes in the State.—*Franklin News*, January 20.

St. Charles.

The planters are preparing to make a start for this year's crop, which promises to be larger than last year. From the present outlook the rice crop will be double the acreage of last year, and no doubt that the cane crop will come for its share also. Potatoes and onions are receiving a little attention, but from the small farmers.—*Herald*, January 22.

FOREIGN LETTERS.

Berlin.

BERLIN, January 8, 1898.

Editor Louisiana Planter: There was last week a sort of semblance of winter, but even this has not kept on longer than two days, after which the temperature rose and wet weather set in again, which in the last days resulted in a regular downpour of rain. True, the factories still working are very few and far between, but their situation is not at all enviable, as their raw material is deteriorating every day; the beets sprouting in the siloes in a measure quite out of record. In fact, the meteorological conditions are at present—that is, at a time when the winter is generally in its most vigorous stage—quite springlike, which is not only prejudicial to sugar making and the work connected with it, but also agriculture in general, the soil becoming cloddy instead of being made friable by hard frosts, which is far from auguring well for next year's vegetable production, which at the same time is endangered by an excess of vermin, the latter failing to be killed by hard frosts. Sometimes the winter in this country sets in very late, and it may be so also this year. In this case, however, spring work would be delayed, and so would the sowing of the beets, which as a rule is telling on the results of the crop. About the same are the conditions and prospects in the other beet countries of Europe, and all around a less changeable and more steadfast winter weather is desired.

The bounty question remains the order of the day, and although there is still probability that the movement set on foot will be conducive to palpable and satisfactory results, it is of some interest to follow its development. Germany and Austria are, it seems, perfectly d'accord that the bounties should be abolished and for them no coercive measure is necessary. But notwithstanding the harmony in the aims to be reached there is some difference in their situation with regard to this question. The present Austrian law is only provisional and expires—and with it the present high bounty—on August 1, 1898. That the parliament of the Austro-Hungarian monarchy should be inclined to prolong the present law is at least very doubtful, and in case a motion of this kind were rejected, the old lower rate of bounty would come into force again. On the other hand, the manufacturers of the Austro-Hungarian empire have their cartel, and this enables them to dispense eventually entirely with the bounty, as they can add the amount lost in the reduced or abolished bounties to the price for home consumption, the object of the cartel being any way to get a better price on the home market. Thus the Austrian manufacturers are practically in a position to look on with great equanimity, no matter what may or what may not become of the bounties. But things are quite different in Germany. This country can not boast of any cartel or agreement what ever to influence home prices, and the bounty abolished, she would be unarmed and delivered up to her competitors, amongst whom

France, with her double bounty, is the most dangerous. Germany, therefore, must insist on a radical measure as to the destruction of the bounty system, otherwise she would be placed in the most disadvantageous position as compared with the two other large bounty-paying countries. But let the bounties be abolished everywhere and Germany will be able to hold her own. But, unfortunately, the time when this question is to be solved in that sense seems to be still very far off, for France has declared that she will not take part in any conference if her indirect bounties are not left alone. Thus it comes to pass, as I once have foretold—when the late bounty law in France was adopted. Anticipating the possibility of an anti-bounty movement, she created for herself an object of compensation in the new bounty, which she would be inclined to give up when other countries sacrificed theirs. The other day our papers reported that the United States Treasury had resolved to apply the American countervailing duty also on the French indirect bounty, but the intelligence needs still confirmation. But any way the measure would be a step in the right direction, by which France could be advised that their indirect bounty is not looked at by everybody as a *noli me tangere*. By the way, strange enough it is, that America has not taken from the outset an attitude which would settle the question in that sense, for what is sauce for the goose is sauce for the gander.

It has been mentioned in these letters already that beet cuttings mixed with molasses have proved to be a very nutritious and wholesome fodder, eagerly taken by the cattle fed by it. There have been made experiments of late by an agricultural authority in order to find out in what it would be best to give molasses to the animals. The result has been that the above mixture produced the best effects on the increase of the weight of the cattle taken as subjects for the experiment; next to that ranged green molasses, but the mixture with peat and palm kernel flour, though also liked by the animals, proved less useful. It may be added that the beet cuttings are dried first by some apparatus invented for that purpose and it is claimed that this way to make use of molasses is at present the most profitable of all.

The course of the markets has so far in the new year not kept what it promised to be. Right in the first days of 1898 the tendency weakened and the retrograde movement, thus rather unexpectedly ushered in, has to all appearance not yet reached its turning, which, however, will certainly not be far off, the situation in general being unchanged in its material points. The present cause of the reaction seems to be that by the mild weather large quantities of sugar have been dispatched on the rivers to the seaports, in consequence of which the tenders there became large and unwieldy. Thus a pressure to sell was produced, which resulted in a marked drop of prices—88 per cent. rendement now being quoted at Magdeburg only at 10.5-10.27 marks, whilst delivery January is worth at Hamburg 9.37 marks f. o. b. Refined were quiet, with prices barely maintained on last week's level.

ROBERT HENNIG.

British Honduras.

[Special Correspondence.]

TOLEDO, B. H., January 10, 1898.

Editor Louisiana Planter: The New Year came in, not with new weather exactly, but dealt us out quite a cold spell. The general cry is "hard times." Christmas passed off quietly—unusually so—as there was not money enough among the laboring classes to get up balls and dances, but it seems that all hands managed to secure employment. The Mexican government sent a gunboat to Belize to guard the Rio Hondo, the boundary line between British Honduras and Yucatan. For a number of years past a tribe of Indians have claimed the territory bordering on British Honduras and have licensed logwood and mahogany cutters to cut wood very reasonably, but with the prospect before them of having to pay double license contractors can not see their way clear to begin work. There was also a fire in Belize lately which consumed a block of buildings, including the largest dry goods store in town. All these things are inclined to add to the hard times, and it appears to sugar planters that the consumption of their product is decreasing. Dealers seem to be working a sort of hand-to-mouth game on them. It is probably on account of the nearness of the new crop.

Dr. Pearce, who bought a small vacuum pan several years ago, and failed to get it to work, has overhauled it lately and secured the services of a vacuum pan man from Louisiana to operate it. He has also purchased a latest improved Hepworth centrifugal, and is setting it up. The doctor will very probably succeed in his undertaking this time. He hopes to make white sugar, and fill a long felt want in the colony. Of course this will mean damp white sugar, as he has no granulator or cube press. This is the first vacuum pan that has ever been imported to British Honduras to the writer's knowledge, and a granulator and cube press would make British Honduras wink her eyes with surprise. Why, the idea of her gay damsels having powdered sugar to go on their wedding cake, grown on native soil, would be (as the darkey said) "too good to talk about." But don't let us despair, the world is still going round and may for thousands of years yet.

TROPIC.

Mr. J. B. Churchill, of Lakeland, La., where he controls large sugar planting interests, was in the city on a visit a few days ago. Mr. Churchill does not visit New Orleans so frequently as many other planters, but his advent is always heartily welcomed by his friends in town.

Mr. H. Friedrichs, skilful, jovial and popular as usual, was a guest in charge of the vacuum pan outfit at Mr. H. L. Laws' Cinclare factory this year. A fine factory like Cinclare has to have a fine sugar boiler, and that is probably the reason why Mr. Friedrichs goes back there year after year.

Mr. J. A. Dalferes, a prominent sugar planter of Assumption parish, was at the Grunewald Hotel last Thursday.

Col. L. S. Clark, of Lagonda plantation, was a guest of the St. Charles Hotel on Tuesday.

BEET SUGAR.

Lehi, Utah.

Superintendent Granger has been in Ogden assisting in the selection of a site for the sugar factory there.

Contracting for beets will be finished this week. The acreage will be between 3400 and 3500 acres.

Superintendent Austin will go to Ogden on Saturday to talk to the beet farmers up there.

Farmers living on the Denver & Gulf Railway are being furnished with a copy of the instructions regarding beet culture as printed on the back of the contracts used by the Utah Sugar Company.

There is only one sugar factory between the State of Wisconsin in the Northwest and the State of Nebraska in the middle West, and the Eastern Atlantic Coast, and that is in the State of New York.

Last week Manager Cutler ordered the beet seed for the Ogden and Oregon sugar factories from Europe by wire. Contracts will soon be made with farmers in these districts. In the Ogden district it is very probable that the beets will be paid for on a sliding scale; at least that is the report from there.

Manager Cutler of the sugar factory made a trip to Ogden on Saturday in the interest of the sugar factory to be built there. He says there are several sites picked out for the location of the sugar factory, but it is not yet decided which one will be chosen.—*Banner*, January 18.

Beet Sugar in the South.

The question of manufacturing beet sugar in the South is constantly increasing in interest, and the indications are that it may be a profitable undertaking in the Virginias. But in States farther South there is much discussion of the question. While there is no desire to oppose or discourage what may prove to be a great source of profit to farmers, as well as a new and important industrial feature, it may be well to move cautiously in the matter. While a number of analyses have been made by the Department of Agriculture at Washington, showing quite a high percentage of saccharine matter in beets grown in the South, in the opinion of experts at least another year will be required before a satisfactory solution of the problem can be reached. A representative of the *Manufacturers' Record* recently made an examination of the records thus far compiled by the Department of Agriculture relative to beet growing, and found that out of 2200 analyses which have been made by the government chemists, about 200 have come from the South. Dr. Spencer, of the Department of Agriculture, who is in charge of the beet-sugar experiments, is authority for the statement that out of these 200 reports only a very small number have shown by analysis that the beets raised contained the necessary percentages of saccharine matter and of purity. In fact, it may be stated that thus far Monroe county, West Virginia, is the only locality where any number of samples have been grown having the right proportions combined.

In this county nine samples were sent to the government which averaged from 14 to 20 per cent. of saccharine matter. Out of the samples six were of a weight up to the commercial standard, which is from about twelve ounces upward.

Dr. Spencer, who has made a study of the cultivation of the sugar beet in Europe, and who is also familiar with the manufacture of the sugar in factories abroad, informed a representative of the *Manufacturers' Record* that it is essential to have the beets of the weight mentioned, also that they should combine the necessary percentages of saccharine matter and of purity. Beets may be grown of the necessary weight and yet fall below the average in the other properties, while on the other hand, beets containing a large portion of saccharine matter may be raised and yet be so small as to be practically valueless for manufacturing purposes.

In a previous article on this subject, we made the statement that twelve tons of beets should be raised to the acre in order to make their cultivation profitable. All these elements entering into the consideration of the question, it will be seen that it is one of much gravity, and that those who undertake to enter into the cultivation of the vegetable on a large scale or into its manufacture without investigating all the conditions, may make a serious and costly mistake. While Dr. Spencer believes that certain sections of the South may have all the advantages for growing beets at a profit, in case the pioneers in beet culture should make a failure, it might cause much injury to the Southern States at large in deterring Northern investors and others from becoming interested in this line in any portion of the South. Consequently, it is well to make haste slowly in the matter, and no harm will be done in at least awaiting the result of further analyses made by the government and by the several State boards of agriculture.—*Manufacturers' Record*.

Sugar Beet Culture Near Quincy.

There are good prospects that sugar beet culture will be engaged in in this section of the State in the near future, and on an extensive scale. The Chicago, Burlington & Quincy Railroad Company is interested in a plant to induce farmers to go into the business. Industrial Commissioner Ross of that corporation says that if the soil is found to be adapted to the growth of the vegetable a plant will be established at Quincy. Secretary of Agriculture Wilson has promised to send a quantity of seed so that it can be determined whether the soil in this vicinity will produce a beet containing the required saccharine properties.—*Chicago Criterion*.

Sugar Beet Cultivation in California.

SAN FRANCISCO, Jan. 13.—The *Call* says: "A cablegram from London announces the success of the mission of Willard E. Green, who recently left for Europe in the interest of the beet sugar syndicate which has been negotiating for lands in the Sacramento Valley. Satisfactory arrangements have been made, and all that remains is to secure the proper

persons to cultivate the beet. Contracts have been signed by which 150,000 acres of land near Chilo, Marysville and Red Bluff have been secured, and the work of erecting three immense sugar factories will be started at once. The syndicate has a capital of \$15,000,000, and intends making the venture if money and experience can do it. The land secured embodies tracts from the Glenn ranch, the Bidwell ranch and the Pelican estate and the Stanford estate, with other tracts in smaller quantities."—*N. Y. Journal Commerce*.

Europe's Sugar Problem.

It was lately reported from Vienna that France was the obstacle to the conference of sugar bounty-paying governments to agree on some means of ending an impossible situation that they have been constructing for some years. Later reports are that the conference will be held, and the inference is that the French ministry has plucked up its courage and is getting ready to antagonize the beet farmers, potent as the agricultural classes of France are. France is paying much the highest bounties of any of the continental countries, and while the amount of this subvention of the beet raisers is a heavy burden on the treasury it is not enough to put France in the first or even the second place as a beet sugar producer. The *Statist* computes the French bounty as about £4 10s. per ton, as against 25s. to 35s. in Germany and 30s. to 45s. in Austria. In spite of this very liberal assistance on the part of the government, France has been surpassed as a sugar producer for the past four years by both Germany and Austria, though for the year 1897-98 the French and Austrian productions are estimated alike.

The ratio of increase for the past four years has been 42 per cent. in France and not quite 38 per cent. in Germany, but in the view of the very much greater production in Germany this difference in the rate of increase for the past four years is not enough to prove the efficacy of the very high bounty paid by France.

Comparing 1896-97 with 1885-86 there has been an increase of 54 per cent. in the world's production of sugar, while there has been a small decrease in the production of cane sugar, and since 1891-92, when the cane sugar reached its maximum, there has been a decrease of 20 per cent. Beet sugar is more cheaply produced than cane sugar is in Louisiana, but it is doubtful if it is more cheaply produced than cane sugar can be produced in the West Indies and like climates where frost never occurs and replanting is seldom necessary. Mr. Baden-Powell assumes that cane sugar is the more cheaply produced, and for certain purposes it is preferred. Apart from the temporary disturbances in Cuba the decrease in cane production and the rapid increase of beet production is due to the payment of bounties. By this agency the production of beet sugar has been increased more than 131 per cent. in eleven years, and in spite of some reduction in cane there has been an increase in the whole sugar output of 54 per cent. England has increased its consumption nearly 50 per cent. and the United States has increased

its consumption a trifle over 50 per cent. But these ratios are below the ratio of increase of production, and England and the United States are the only two countries that import large quantities of sugar. England must continue to import, but it is not certain that the United States will. Willett & Gray's estimates of the beet and cane sugar production in the United States in the past four years are as follows:

Year.	Beet.	Cane.
1897-98.....Tons.	70,000	240,000
1896-97.....	40,000	240,000
1895-96.....	30,000	237,000
1894-95.....	20,000	317,000

The consumption of sugar by this country and England for eleven years has not quite kept pace with the increased production, and yet it has been stimulated by the falling prices. The prices have now declined to a point where German and Austrian producers declare that they can scarcely live with the bounties and could not possibly meet their expenses without, unless the entire bounty system were abandoned, the production allowed to drop off and the price to rise. Eight pounds five shillings a ton was the price of beet sugar in London lately, and an advance of twenty shillings is attributed by the *Statist* to the anticipation that the bounties would be abandoned. Adding a bounty of £1 5s. to a London price of £9 5s. and the sum is £10 10s., which is testified by experts to be the very lowest price at which sugar can be produced in Magdeburg and shipped to London. Any further decline, then, might be expected to check itself by stopping production. But this process takes time. Men will plant beets according to their hopes of next year and not their knowledge of last year. Licht's estimate of the coming crop is larger than his report of the last crop in Germany, France and Russia, the aggregate beet sugar production being estimated for the coming year at a minute fraction less than the production of 1896-97.—*New York Journal of Commerce*.

The Failure of Sugar Bounties.

[From the Glasgow Herald.]

It is permissible to hope that the year just closed will form a turning point in the fortunes of our sugar colonies and of our long-harassed sugar industry. At all events, one may say that never since 1888 has a brighter prospect been presented of a solution of the bounty problem, such as not even a peripatetic Royal Commission has been able to solve. When experts are so greatly at variance over the meaning and effects of bounties the plain man may well feel helpless. He knows that he now gets sugar at a price which in his childhood would be regarded as fabulous, but he is not quite sure whether cheap sugar is a blessing or a bane. It is, at any rate, not the household consumer who would resent and resist that addition of a farthing or so a pound, said to be all that is needed to save the West Indian colonies from fiscal perdition, but it is not the household consumer who rules the trade. The enormous consumption per head of the population in Great Britain is not due to excessive sweetening of either the cup that cheers or the whiskey that inebriates, but to the extensive employment of sugar in the manufacture of jams, biscuits and confections (largely for export) and in the brewing of beer. By the help of cheap sugar we have built up several great

manufacturing industries and developed an important branch of export trade.

A significant symptom of a turn in the tide is the improvement in the price of sugar in the United States—now the best market for our West Indian producers. Two very interesting points about the United States' connection with sugar are to be noted. That country is the largest consumer in the world, and it is the only country which has imposed countervailing duties on bounty-fed sugar. This fiscal action of the United States has, perhaps, had more effect in paving the way for abolition of the bounty system than our Chamber of Commerce and Anti-Bounty Leagues, have as yet recognized. It may not be generally known that together the United Kingdom and the United States consume one-half of the world's production of sugar, but that the proportions are—United States, 30 per cent.; United Kingdom, 20 per cent. The following shows the world's consumption during the last five years:

	United Kingdom.	United States.	Other Countries.	Total.
	Tons.	Tons.	Tons.	Tons.
1897.....	1,500,000	2,100,000	8,974,000	7,474,000
1896.....	1,508,000	2,100,000	8,287,000	6,890,000
1895.....	1,539,000	1,950,000	4,488,000	7,922,000
1894.....	1,386,000	2,018,000	8,879,000	7,278,000
1893.....	1,353,000	1,907,000	8,099,000	6,359,000

Now, in the United States all countries are, by the operation of the duties, placed upon equal terms, and not only has this been a considerable relief to our West Indian producers, but it has caused continental governments to consider the bounty question more seriously than they were previously disposed to do. These bounties have become an enormous burden upon the countries which grant them. In France they now amount to £4 10s. per ton; in Germany from £1 5s. to £1 15s.—say, an average of £1 10s. per ton; and in Austria-Hungary from £1 10s. to £2 5s.—say an average of £2 per ton. Now, the production of beet sugar by continental countries over the last four years has been, according to Licht, as follows:

	1897.	1896.	1895.	1894.
	Tons.	Tons.	Tons.	Tons.
Germany.....	1,900,000	1,886,538	1,615,111	1,414,461
France.....	825,000	752,081	667,858	792,511
Austria.....	825,000	984,007	791,405	1,045,821
Russia.....	800,000	715,000	712,096	615,068
Belgium.....	225,000	288,099	235,785	248,957
Holland.....	120,000	174,208	106,629	84,597
Other countries.....	190,000	201,000	146,340	157,127
Total.....	4,885,000	4,900,929	4,285,429	4,790,582

In 1896 France exported 340,000 tons, the export bounty on which amounted to £1,500,000. In 1897 the exports are computed at not less than 500,000 tons, the bounty on which at £4 10s. per ton will amount to the enormous sum of £2,250,000, all to be paid out of the national exchequer to the producer and importer. In 1896 the German exports were 1,225,000 tons, the bounty on which at £1 10s. per ton would be £1,337,500. Thus France, on less than half the quantity sent away, pays nearly half a million more than Germany in bounties. As regards the producer of bounty-fed beet sugar, the present position seems to be this, that the price in London and the bounty just about cover the cost of production in the most favored district of Germany, but leave a good profit to the French producer in consequence of the higher bounty he receives. The effect of a high bounty is to reduce the selling price, and if Germany were to increase her bounties the price of sugar would become lower than ever, and France would suffer severely, as Germany already exports nearly three times as much as she does. But, on the other hand, the very largeness of the exports of Germany is calculated to weigh against any movement to increase the bounties there; while the necessity of reducing taxation, which is being year by year more impressed upon France, must tend to make each French government regard with growing doubt the heavy drain caused by bounties.

These circumstances, which operate against any probable increase of continental bounties, are directly making for the abolition of them. The trade has ceased to be profitable to German producers through (*inter alia*) the increase of the French bounties, and the threat of Germany to double her bounties may be enough to induce France as an alternative to reduce hers. Neither country can afford to enter upon a war of bounties, and, therefore, the time is opportune for asking each to consider the propriety of abolishing them altogether. The action of the Anti-Bounty League, recently established in London, is "to promote by all means in its power the abolition or the neutralization of the bounties which are pressing so heavily on important home industries, and have already brought many British colonies to the very verge of ruin." It need hardly be said that "neutralization" means countervailing duties, which no parliament would impose without a direct mandate from the country—a mandate which the country is not prepared to give, in spite of the entreaties of the Greenock Chamber of Commerce and other bodies. The German Secretary of Finance informed the Reichstag the other day that negotiations for the international discussion of sugar bounties have been resumed with good hopes of a successful issue. The French Government have favorably entertained the representations which have been made to them. And Mr. Chamberlain is at present co-operating with Lord Salisbury in preparing material and arguments to lay before an international conference on sugar bounties, which, it is hoped, will be arranged for early this year.

Trade Notes.

W. W. Carre.—We invite the attention of our readers to the advertisement of Mr. W. W. Carré, which appears in this issue of THE PLANTER. Mr. Carré's long experience in the lumber trade, together with his large facilities, makes him at once a leader in his particular line of business. The portable plantation cabin which he manufactures is a vast improvement over the old style, and our planters would do well to communicate with or call on him for anything in his line before placing their orders elsewhere.

F. W. Freret.—Among the rising young men who are bidding for a part of the sugar planters' trade none merit more consideration than Mr. F. W. Freret. Ever alert to the wants of the trade and to serve his customers with the best in his line, it is a matter of more than ordinary importance to the planters to consult him when in need of filter presses, filter cloths and filter bags, as well as cotton-seed meal and cow peas for fertilizers. His advertisement appears in this journal, to which we call the attention of our readers.

Comeaux' Cane Carts.—We desire to call attention to the advertisement, appearing elsewhere in this issue, of Mr. C. Lucas Comeaux, in which he makes some interesting statements regarding the patents covering his admirable cane-planting carts and wagons. Mr. Comeaux' vehicles are in such extensive use, and so many people are interested in them, that the special notice he prints to-day in THE PLANTER should be carefully read by all.

Mr. J. W. Barnett, of Shadyside, registered, at the St. Charles on Wednesday.

James Dunn's Review of the Sugar Trade of 1897.

The year which is nearing its close presents a remarkable contrast to its immediate fore-runner. The feeling of depression which grew out of the disappointments and disasters which succeeded the speculative outburst of the earlier half of 1896 has throughout its entire course persistently dominated the business of 1897, and the consequences are now seen in one unbroken line of low prices, and in a lower average value than ever before recorded in the history of the trade. About the middle of August an important speculation in grain served for a time, notwithstanding its extraneous character, to encourage the belief that the same spirit was also about to enter into sugar, and all the anticipations formed in the early months of the preceding year were again revived. But this was another mistake. Values were then, as they are now, low enough to attract general attention, but any sympathy which may have detached itself from the grain movement speedily congealed, so that, after a brief experience of something which had the appearance of enterprise, the trade returned to its well-worn channels of indifference, and the European crop, which was now approaching its more critical stages, remained the sole arbiter of events. All the fine theories which had been advanced on the subject of speculative contagion were now abandoned, and the less complex exercise involved in the study of weather reports was fittingly substituted as a safer way to a practical conclusion. It was to such simple observations, therefore, that attention was now directed, and Mr. Licht's periodical reports on the various phases of progress accordingly became the topic of all absorbing interest. In the early stages of preparation for the crop of 1897-98 he gave it as his opinion that the area under cultivation was 3 per cent. less than that of the former year, and this, under all ordinary circumstances, meant a probable shortcoming of 150,000 tons on the comparative ultimate outturn.

This and a minus of importance which was expected to appear in the visible supplies at the end of the statistical year (1st September), 1896-97, as compared with the quantity available at the same point applicable to that of 1895-96, constituted in a general way the forces by which prices were ultimately to be raised from the low level to which the reactionary movement which followed the speculative blunder of 1896 was supposed to have artificially depressed them. But here, again, another calculation failed to give the desired results, for the minus in the visible supplies was, in relation to the other figures, insignificant, while the estimate as to the effect of the reduced area was for a time upset by other and unforeseen conditions, which gave promise of a crop bountiful enough to nullify all other considerations. It was under such circumstances, therefore, and awaiting Mr. Licht's definite estimate of the supplies for 1897-98, that prices, which opened on the 1st of January at 9s. 1½d. per cwt. f. o. b. for 88 beet root and 11s. 9d. per cwt. floating terms for Java sugar continued to linger round those figures. The minimum point for the former

has been 8s. 3d. and the maximum 9s. 6¾d. per cwt. On 16th October, when values stood at 8s. 7½d. for beet root and 11s. for Java cargoes, Mr. Licht published his first estimate of the crop, giving as the probable result 4,925,000 tons of beet root and 2,460,000 tons of cane sugar, or a total of 7,385,000 tons, and this, with the balance of 1,100,000 tons brought forward from last year's account, gave 8,485,000 tons as the total sugar available for meeting the necessities of mankind for another year. In this estimate of the beet root production, which was only 25,000 tons short of that of the previous campaign, it was then seen that greater weight of roots and higher richness of saccharine, together with an almost complete absence of blanks or bare spaces, had combined to compensate for diminished area of cultivation, and that the estimated loss of 150,000 tons from this curtailment had practically been frustrated.

Since publishing his first estimate, Mr. Licht has seen fit to reduce, by slow degrees and at various points, the probable result by 120,000 tons, so that the benefit of a gift from a liberal and bounteous nature has, in turn, and by other miscalculations, been all but lost. In any case, it will need considerably larger figures than any yet conceived of as possible, whether as lessening or increasing the aggregate supply for the year, to affect in any appreciable sense, the very substantial character of the grand total of almost 8,500,000 tons which remain to be dealt with. Like everything strong, it can stand a good deal of detraction without inconvenience, and this being so, it is all the more necessary that any estimate as to its ultimate disposal be as well founded as is that which creates the problem. The disposal of the estimated supply by the probable demand is the point upon which grave errors have occurred in the past, and it is well to remember this before accepting any statement as being even near the mark. In a table giving estimates of the world's consumption of sugar which was put in before the West India Royal Commission by Mr. N. Lubbock, that gentleman estimates that of the year 1894-95 at 7,000,000 tons.

He shows that from 1885-86 its course has been irregular, and even fluctuating; but as over the whole period the progress is represented by an average yearly increase of about 200,000 tons, it is on this assumption fair to estimate the consumption of 1897-98 as somewhere in the region of 7,600,000 tons. This quantity, then, coming against the estimated available supply, will leave something like 765,000 tons as a margin, and allowing for further reductions of say 100,000 tons in the European estimate, and for additions of perhaps 200,000 tons to that of cane sugar, having the better condition of Cuban affairs in view, there will remain a probable balance of 865,000 tons on 1st of September, 1898. This balance, which is 335,000 tons under that on 1st September, 1895, and 245,000 tons under last year's, seems to be one which carries with it sufficient promise of safety and change for the profitable handling of sugar throughout the coming year. Meanwhile, this calculation is only put forward as a near approach to a fair

conclusion from those other statements and observations referred to, and as to the perfect fairness of which their can, at any rate, be no manner of doubt. If it could be dealt with as a certainty, and fully recognized as the point of difference which marks two opposing groups of figures, and as forming a sort of buffer between them, such a quantity is no more than may be considered necessary to regulate the ordinary events of the market with moderation; but looking to the rapid development of the trade in European refined sugar with the East, especially with India and Japan, and to the probabilities in relation to bounties and continental taxation, it seems doubtful if the present scale of production will long be able to bridle the demand to anything like its present limits. Already, even as matters stand, this season's supply is short of the probable consumption of this year by about 200,000 tons.

JAMES DUNN,
Glasgow, Scotland.

Adulteration of Molasses.

The recent article in this journal in reference to the adulteration of molasses, which, as then stated, had assumed extensive proportions, has had the effect of concentrating attention upon this practice with the result that suggestions have already been made for bringing about some remedy for what is now generally considered a serious trade evil. Opinion has not yet apparently been crystallized, but there is considerable talk of the need of legislation, and it is believed by some that efforts may be made during the coming session of the Legislature to secure the passage of a law designed to prevent the sale of the adulterated article except as such. The question is by no means merely a local one. There has been much complaint among dealers throughout the State at the increasing proportion of adulterated goods in the market, which they claim has resulted in serious injury to trade in the pure article.

While no positive action has yet been instituted, the matter has been informally broached before officers of the Wholesale Grocers' Association of this State, and it is not unlikely that that organization may be formally requested to take up the question of legislation in earnest. An unusually stringent pure food law goes into effect in the State of Massachusetts on the first of January, and this has the effect of emphasizing the need of more diligence in this State. As a matter of fact, there is at present a law on the statute books of New York which was intended to prevent the sale of adulterated food products as pure, but as no appropriation was made to secure its enforcement it has been practically a dead letter. The act approved on May 16, 1892, amending Sec. 407 of the Penal Code, provides that any person shall be deemed guilty of a misdemeanor who, "with the intent that the same may be sold as unadulterated or undiluted, adulterates or dilutes wine, milk, distilled spirits or malt liquor, or any drug, medicine, food or drink for man or beast, or knowing that the same has been adulterated or diluted, offers for sale or sells the same as unadulterated or undiluted." * * *

Several members of the local trade have expressed a desire either to have an adequate appropriation made at the next session of the Legislature for the enforcement of the law or else to secure the enactment of a more stringent measure, with, of course, an appropriation. A prominent dealer, when conversed with yesterday, said:

"What we need in this State is a pure food law and an appropriation to enforce it. In Connecticut, for instance, the Dairy Commissioners have the inspection of food products in hand. They do not go to the wholesaler, but to the retailer, where they can find just what condition the goods are in when they reach the consumer. If they find that the goods are adulterated they notify the retailer that he will be prosecuted. Fines of \$100 have been enforced in Connecticut, and as the retailer usually ships back the condemned goods to the wholesaler the latter is also made to feel the effect of the law. We need something of this sort in New York. It would be a popular movement, and I think some one should agitate it before the Legislature."

Louis C. Nalsawald, a local broker, said:

"There are laws in various States, but they are not always enforced. I believe that national legislation, if it can be obtained, would be most desirable, as the evil could then be attacked at the very root. I believe, however, that a good deal can be accomplished by State laws, and feel confident that a law could be passed.

"I also believe that every planter should copyright and trade-mark his brands, for this would certainly be a protection."

Another lower Wall street merchant, in close touch with the trade, said:

"I have heard of considerable dissatisfaction among grocers up the State. A Rochester merchant who was in the city recently told me that adulteration had become so extensive that unless some remedy was secured he should think of giving up dealing in molasses."

Another local broker said:

"I do not know whether legislation can accomplish anything. There have been laws in some States requiring packages to be branded 'compound,' but in many cases this brand was put on with stencil, with quarter-inch letters, so that it could be effaced by rubbing the hand over it or in loading. I do not think that the ingredients used in bleaching are injurious, as the quantity used is small. Personally, I believe that mixing is overdone. The molasses is mixed in the South, mixed again here and perhaps mixed again by the retailer. I am of the opinion that the practice has been carried to such an extent that a reaction will set in and the evil will thus cure itself."

One cause of the increase in adulteration and mixing, as stated in the previous article, is that under the present system of refining sugar by centrifugal process a much greater proportion of the sugar is extracted from the cane, so that the molasses is consequently so much the poorer in quality and darker in color. The planter can sell his sugar for say 4 cents per pound, while the best of molasses brings but little more than 2 cents per pound, so that the former is obviously the first consideration. Indeed, molasses is in some cases so impoverished by the centrifugal process that it is thrown away. The fact that laws have been enacted to prevent the dumping of molasses in streams and bayous indicates perhaps as well as anything the relatively smaller consideration which this product now receives

by the sugar planter. While, however, the crop has been reduced in quantity, it would be far wiser, local dealers assert, to sell it at good prices than to "extend" it by using glucose so freely and consequently bring about a decline in its value.

Molasses from Porto Rico and Barbados is said to reach this country in prime condition, the use of glucose and other adulterants not yet having been practised in those sections.—*New York Journal of Commerce.*

New Pure Food Laws Proposed.

The article on the adulteration of molasses which appeared in these columns on Monday last has already borne fruit. A bill will, it is announced, be introduced in the New Jersey Senate this week and one in the New York Assembly covering the question of adulteration. The bills are practically identical, and their provisions are very sweeping in character.

They propose to prohibit the manufacture or mixing of wheat flour with any foreign substance whatever, especially corn flour, barley flour, or corn starch, when the same is to be sold or offered for sale, or the articles to be made therefrom sold or offered, or exposed for sale, unless such adulterated or mixed flour be marked or branded "adulterated," and also bear an analysis on the package showing what its real contents are and the amounts or percentages of each body thereof composed.

They propose further to prohibit the manufacture of bread, cakes, pies, pastry and confections with any flour whatever except wheat flour, when the same is to be sold or offered or exposed for sale, unless such manufactured articles shall be sold from or exposed in packages or cases, or other receptacles that shall bear a mark or sign reading "Made from mixed or adulterated flour;" also, the same sign to bear an analysis of the constituent parts, showing the percentage of each body therein contained.

The bills are intended to prohibit the manufacture of candy and confections of all kinds, or any part of the same, from glucose or grape sugar, so-called, when the same is intended for sale or to be offered or exposed for sale, unless such manufactured articles be branded or marked "adulterated," and the package further marked or branded with an analysis setting forth the percentage of the different bodies therein contained.

They seek to prohibit the mixing of cane molasses or cane syrup, maple syrup or maple molasses with glucose or grape sugar syrup, or the manufacture of preserves, jellies or other articles of food with the aid of glucose, glucose syrup or grape sugar syrup, unless the packages containing such cane molasses, cane syrup, maple syrup or maple molasses be branded or marked "adulterated," and bear further mark or brand setting forth the percentage of the pure article and the percentage of the adulterant.

No licorice or any article intended to be an article of food shall be manufactured with the aid of glucose or grape sugar unless it shall be branded "adulterated," and bear an analysis of its constituent parts.

No glucose or grape sugar shall be used in

the manufacture or brewing of beer or ale. Cognizance is taken of the fact that glucose or grape sugar forms in a natural manner by the action of the diastase in malt upon the starch in the grain used by brewers, in the operation of brewing, and this glucose or grape sugar so formed is exempted from the operation of the act.

No refuse from glucose factories is to be offered or exposed for sale in this State.

No mixed flour, as described in Sec. 1, no pastry, bread, cakes, pies, or any article of food, as described in Sec. 2; no candies or confections, as described in Sec. 3; no molasses or syrups, as described in Sec. 4; no licorice or other article of food, as described in Sec. 5; no beer or ale, as described in Sec. 6; no refuse from glucose factories, as described in Sec. 7, shall be offered or exposed for sale, or sold, unless as provided in the marking or branding as set forth in the different sections; or, if sold, offered or exposed for sale, otherwise than as herein provided, it shall be deemed a violation of the act.

Glucose and grape sugar, or corn starch or corn flour, when mixed with wheat flour and made or mixed with articles of food for human consumption, are to be considered adulterants, and their use in the manufacture of foods or articles intended for human consumption is prohibited, except as specifically provided. Their sale, offering, or exposing for sale, except as herein provided, is also prohibited.

The bill provides that the act is to take effect immediately, the penalty for violation to be a fine or imprisonment, or both.—*N. Y. Journal of Commerce.*

Glucose Manufacture—Its Development and Present Condition.

In your issue of yesterday appeared an article relating to molasses and adulterants. I read the article with as much curiosity as pleasure, and, upon reading the last line, I wondered who could have blundered.

In the article referred to, purported interviews with various grocers and others interested in the molasses and syrup business were quoted, and the laws of different States were likewise. If the question as to glucose being an adulterant of molasses was now first raised nobody would attempt to deny the fullest investigation as to the wholesomeness, commercial value and integrity of the product, but glucose and grape sugar have the pride of ancestry in this country of more than twenty years as articles of manufacture and commerce. It started small and has grown great, and any one who now challenges glucose as an adulterant, unwholesome or unfit for consumption, must deny the faith and say that of the 800,000,000 or 900,000,000 pounds produced in this country last year from Indian corn, of which more than 194,000,000 pounds were exported, has a hard row to hoe.

When we come to consider the question of adulterants, two propositions arise: First, as to whether the article is sold pure, and second, whether it is sold under the name designated. Nobody pretends that an admixture of glucose with cane syrup is not syrup and that it is not

molasses; nobody pretends that the mixture of glucose with molasses made from cane is not pure and wholesome. Where the line of adulteration and purity should be drawn many Legislatures have attempted to define, but the public taste and the public will have overridden all statutory enactments.

Nobody whines because they get a XXXX flour made of a mixture of winter and spring wheat; nobody finds fault when they get a baking powder made up of one one-third cream of tartar and two-thirds of starch or flour; nobody objects when they get an all-wool suit made one-third of cotton; nobody objects when they get a cup of coffee or a cup of tea with a lump of sugar in it, that there is adulteration. The simile may be carried all along down the line, and when we come to adulteration the scene changes, and we find that we are sadly lost when we come to determine what is and what is not an adulterant, and where pure food laws begin and ought to end.

Sugar is to the chemist a collective name. There are two classes of sugars closely related to each other, one of them, our ordinary cane sugar, as well as beet sugar, which is chemically identical with cane sugar, is an example. Of the other class, grape sugar, a glucose, or dextrose, the sugar of grapes and honey, is the principal example.

Glucose, the liquid form, is a clear, white syrup, varying in gravity from the light to the heavy; and grape sugar is the solid form, uniformly white or nearly so. These have about two-thirds the sweetening power of cane sugars or syrups. The uses of glucose or grape sugar are manifold, but the principal are the manufacture of lager beer and ale, table syrups, confectionery, fruit jellies and canned fruits, tobacco, wines, liquors, canned meats, etc.

Some years ago doubts were raised as to the purity and healthfulness of glucose, or grape sugar, and the questions involved were referred by the government of the United States to the National Academy of Sciences, which is composed of fifty members, comprising those among the most eminent in every branch of science. The academy is a government institution, and its duty is, whenever called upon so to do by any department of the government, to investigate, examine, experiment and report upon any subject of science or of art that shall be submitted to it.

Upon request the academy appointed the following eminent gentlemen from among their number to make the desired investigation: Professor George F. Barker, University of Pennsylvania; Prof. William H. Brewer, chairman, Yale University; Prof. Wolcott Gibbs, Harvard University; Prof. Charles F. Chandler, Columbia College; Prof. Ira Remsen, Johns Hopkins University. These eminent men, after an investigation extending over a period of nearly two years, in a voluminous and exhaustive report, said, in part, as follows:

Starch sugar represents one distinct class of sugars, as cane sugar does the other—the former being obtained naturally from the grape, as the latter is from the cane and the beet. Starch sugar, which is a term chemi-

cally synonymous with dextrose and glucose, when pure has about two-thirds the sweetening power of cane sugar. No impurities, either organic or inorganic in character, were detected in any of the samples examined.

The elaborate experiments upon the fermentation of starch sugar would seem to be final on the question of the healthfulness, not only of glucose itself, but also of the substances produced by the action of a ferment upon it. This result, rigidly applied, holds, of course, only for those sugars which are made from the starch of Indian corn or maize.

The manufacture of sugar from starch is a long-established industry, scientifically valuable and commercially important. The processes which it employs are unobjectionable in their character, and leave the product uncontaminated.

The starch sugar thus made and sent into commerce is of exceptional purity and uniformity of composition, and contains no injurious substances. Though at best having only about two-thirds the sweetening power of cane sugar, yet starch sugar is in no way inferior to cane sugar in healthfulness, there being no evidence before the committee that maize starch sugar, either in its normal condition or fermented, has any deleterious effect upon the system, even when taken in large quantities.

In 1894, after the expiration of ten years from the time of making their previous investigation and report above quoted from, these eminent scientists gave separate individual certificates reiterating their former opinions as to glucose and grape sugar.

That one industry like that of glucose consumes annually 35,000,000 bushels of corn may not tell the whole story; but when it is considered that this quantity is more than one-half of our average annual exports of corn for a series of years the magnitude of the glucose industry can be better appreciated.

During the fiscal year ending June 30, 1897, the total exports from the United States of glucose and grape sugar, according to government reports, exceeded 194,000,000 pounds, and the domestic consumption did not fall below 450,000,000 pounds, and probably largely exceeded that quantity.

The imports of glucose and grape sugar into the United States for fiscal years ending June 30 were:

Years.	Quantities. Pounds.	Values.	Value per unit. of quantity.
1884.....	3,428,397	\$72,684	.02
1885.....	2,496,408	68,495	.03
1886.....	2,004,702	45,227	.02
1887.....	1,784,642	35,644	.03
1888.....	1,863,598	38,260	.02
1889.....	840,657	21,896	.03
1890.....	911,573	21,035	.02
1891.....	815,491	22,038	.03
1892.....	202,971	11,929	.04
1893.....	195,194	6,175	.03
1894.....	217,847	6,621	.03
1895.....	120,402	2,976	.03
1896.....	137,603	3,180	.02

(It will be observed that imports are steadily decreasing.)

The exports of glucose or grape sugar from the United States for fiscal years ending June 30, respectively, were:

Years.	Quantities. Pounds.	Values.
1884.....	6,773,115	\$212,628
1885.....	1,825,795	60,078
1886.....	2,572,090	67,775
1887.....	4,476,931	118,620
1888.....	6,263,757	163,573

1889.....	31,285,220	748,580
1890.....	38,256,161	865,176
1891.....	58,149,427	1,894,131
1892.....	96,486,953	2,372,779
1893.....	101,546,814	2,904,216
1894.....	124,796,288	2,828,707
1895.....	183,806,329	2,567,784
1896.....	171,231,650	2,772,335

(It will be observed that exports are continually increasing.)

The countries and colonies or possessions to which glucose or grape sugar was exported from the United States in 1896 follow:

Years.	Quantities. Pounds.	Values.
Austro-Hungary.....	152,806	\$2,730
Belgium.....	1,320,118	21,574
Denmark.....	600	11
Germany.....	747,768	12,095
France.....	256,000	6,080
Italy.....	51,596	411
Netherlands.....	140,965	2,818
Sweden and Norway.....	12,000	329
United Kingdom.....	160,861,173	2,598,630
Dominion of Canada.....	2,333,144	37,599
Central America.....	192	5
Mexico.....	386	14
West Indies.....	5,511	109
Argentina.....	403,844	8,826
Ecuador.....	2,763	54
Peru.....	1,200	18
Uruguay.....	12,770	185
Turkey.....	1,280	24
Australasia.....	4,915,319	77,163
Hawaiian Islands.....	632	19
Africa.....	441,591	8,670

Not one of the large glucose plants in this country has ever been erected and operated within less than a year from the laying of the foundation; and none of them have ever turned a wheel until the expenditure of an amount approaching or exceeding \$400,000 or \$500,000. The high degree of skill required in operating such a plant is not common to the trade and can not be found running around without a badge of efficiency and honesty.

For the benefit of the would-be investors in any new glucose enterprise, I append a list of factories that have failed, burned, ceased to exist, or for some reason have become lost to the world since 1882-83:

Champaign Grape Sugar Co.....	Champaign, Ill.
Eberts'.....	Chicago, Ill.
Danville Refining and Starch Works.....	Danville, Ill.
Veiller, Jayne & Co.....	Freeport, Ill.
Gladstone Refining Sugar Co.....	Gladstone, Ill.
Richard & Gill.....	Pekin, Ill.
Peoria Grape Sugar Co. (burned).....	Peoria, Ill.
Sagetown.....	Sagetown, Ill.
Des Moines Syrup Refinery.....	Des Moines, Ia.
Iowa City Grape Sugar Co.....	Iowa City, Ia.
Atchison.....	Atchison, Kas.
Leavenworth Sugar Co.....	Leavenworth, Kas.
Michigan Sugar Co.....	Detroit, Mich.
Rochester Grape Sugar Co.....	Kansas City, Mo.
St. Joseph Refining Co.....	St. Joseph, Mo.
St. Louis Syrup, Glucose and Grape Sugar Co.,	St. Louis, Mo.
Omaha.....	Omaha, Neb.
American Grape Sugar Co. (burned).....	Buffalo, N. Y.
Buffalo Grape Sugar Co.....	Buffalo, N. Y.
Firmenich Sugar Refinery Co.....	Buffalo, N. Y.
Booth & Edgar.....	New York, N. Y.
Manhattan Sugar Co., Ltd.....	New York, N. Y.
Tippecanoe Grape Sugar Co.....	Tippecanoe, O.
Fells Syrup Factory.....	Wheeling, Va.

There may be an old factory or two, idle for ten or fifteen years, badly located, and for the vital conditions of business which has never been able to run, that somebody will try to

rehabilitate. No one can ever compass the credulity of capital.—*A Manufacturer, in N. Y. Journal of Commerce, January 12.*

Competition in Sugar.

The increasing production of beet sugar in the United States gives promise of some interesting economic results. It must have a serious effect on the revenue from customs long before it can cut down by one-half our annual import of raw sugar; for, if domestic production of the sugar beet is to increase at the rate now established, it will diminish the productiveness of tariff taxes faster than any other influence can be expected to increase it. But the most notable result of the growth of the beet sugar industry will be to render impossible any monopoly in sugar refining. Beet sugar production is necessarily conducted near the agricultural centres where beet culture is carried on. It involves the creation of a multitude of small factories, costing about \$200,000 each, and supplying a market not greatly removed from the seat of production. The declared purpose of the beet sugar men is to divert capital from further investment in refineries on the Atlantic coast to refine imported raw sugar, and to induce capital to invest in the hundreds of new factories that will be required to work up the amount of beets necessary to supply the whole market with sugar. One of the first illustrations of the part which this industry is destined to play in the development of the country's commerce is to be found in the fact that Chicago department stores are already drawing their supply of sugar from the Nebraska beet factories, and have become entirely independent of the sugar trust and of the system of factor's agreements by which the wholesale grocers help the trust to maintain its monopoly.

This is a very instructive example of the impossibility of successfully defying the operation of the natural law of competition in trade. It is a little over ten years since one firm in this city sold at a profit for export at least 100,000 tons of standard granulated sugars. It had by that time become evident that there was nothing to prevent sugar being sold as cheaply in this market as anywhere in the world, and that in a few years the owners of antiquated refining plants might be compelled to charge them to profit and loss. To stave off a result which, in the nature of things, was inevitable, the original Sugar Trust was formed under a deed dated August 16, 1887. The first form of combination had to be abandoned after the decision of the New York Court of Appeals in the case of the People against the North River Sugar Refining Company. On the publication of this decision, in June, 1890, the trustees and holders of certificates in the original Sugar Trust took the necessary legal proceedings for a reorganization, and the American Sugar Refining Company was incorporated under the laws of the State of New Jersey with a capital of \$50,000,000. The initial weakness of the combination was not cured under the plan of incorporation, and it was somewhat aggravated by the inclusion of the Philadelphia refineries in the trust and the consequent issue of an additional \$25,000,000 in common and pre-

ferred stock. The plants that were shut down and the machinery that was left unused, while still drawing their proportionate share of the profits of the business, would have had to be abandoned entirely under any system of normal competition. As it was, the whole business of the combination was carried on with plants worth \$10,000,000, against which had been issued \$10,000,000 of 6 per cent. bonds and \$75,000,000 of stock.

The Philadelphia refineries were taken into the combination to neutralize a competition which had reduced the refining margin as low as 60 cents per 100 pounds. Since this consolidation was formed, in 1891, the difference between the prices of raw and refined sugars has ruled between \$1 and \$1.25. But if there were a profit on refining carried on by the aid of the most improved appliances and according to the most economical methods, on a margin of 60 cents, there must be a very tempting profit on a margin varying from 70 to 100 per cent. more than this. That of itself was sufficient to tempt new capital into the business, and production would have been overdone, as quickly and surely as it would have been under like conditions in the woolen or cotton industry, but for the combination formed between the sugar refiners and the distributors of their product, the wholesale grocers. The aim of the parties to this agreement between manufacturers and jobbers was to establish a boycott against any wholesaler or retailer who handled sugar competing in price with that of the trust, or who attempted to cut the prices established by the trust. The combination has, so far, remained intact, because of the impossibility of any dealer in sugar being able to count on a steady supply outside of the product of the trust, or of the refineries which have accepted its rules as to price and distributors' profits.

Now, however, this combination is menaced from three separate quarters. Here, in the East, two new and well equipped refineries which are to be run on absolute independence of trust methods are approaching completion, so that the union between the trust and the wholesale grocers is in danger throughout all the territory where it has proved strongest. However well disposed the wholesale grocers may be, as a body, to live up to their agreement for the sake of securing a fixed rate of profit, they will be compelled to trade where they can buy most cheaply, under penalty of having some competitor take their business away from them. And then, on the other hand, the trust can not well continue to guarantee the jobber his present profit if it has to cut down its own. The second quarter from which the trust is attacked is by the competition of the Louisiana sugar houses which treat the cane grown in their immediate vicinity. Several of these are producing a fairly high grade of refined sugar which not only impairs the hold of the trust on the chief Southern markets, but is coming into competition with it in parts of the West as well. Finally, there are the beet sugar factories, whose construction seems to be fairly keeping pace with the enormous development in the beet culture. It has taken the American farmer some time to learn how to grow the sugar beet to the best

advantage. But throughout considerable sections of the country the difficulties of this form of intensive horticulture seem to have been fairly mastered, and beet sugar production bids fair to take rank as one of our important industries. As it comes to the front, the system of sugar refining, as practised in the East, must assume less and less importance as a source of national supply, and the monopolistic methods under which it has been conducted must be abandoned altogether.—*N. Y. Journal of Commerce.*

Trade Notes.

Anniston Lime.—The celebrated "Star and Crescent" refinery lime manufactured exclusively by the Anniston Lime and Stone Company, of Anniston, Ala., has a local "habitation and a name" with the sugar planters and refiners of Louisiana.

The above well-known lime manufacturers now invite attention to their New Process Hydraulic Cement Lime for building purposes and white-coat finishing work, and they expect to merit patronage on the ground that they claim to stand between the consumer and the constant annoyances and the great expense connected with the use of poor lime put up in shoddy and short-weight packages and thrown on the market at a "cheap" price.

It is well known that the main loss on lime in transit or in stock is from air slacking. This can be reduced to the minimum of risk only by the best of coöperation. The Anniston Lime and Stone Company say they use strictly No. 1 barrel stock, and this fact should be duly appreciated by the trade.

The real value of lime is roughly measured by the quantity of sand it will serve to unite. This new process of lime, put out exclusively, we are informed, by the Anniston Lime and Stone Company, has a bond or adhesive strength which they say is unsurpassed, with a brick-laying capacity of 1800 to 2000 brick per barrel of lime. This is an interesting achievement on the scientific side when the fact is taken into consideration that the government standard specifies only 1000 to 1200 brick per barrel.

The main office and warehouses of the Anniston Lime and Stone Company are in New Orleans. It has therefore facilities for distributing its product on the shortest notice. This is a great advantage, but it is only one of many claimed to be possessed by this company over all competitors in Louisiana.

Mr. R. H. Cobb, vice president and general manager, while giving his attention principally to the management of the lime works and the home office, spends much of his time in Louisiana. The well-earned reputation of superiority for the products of the Anniston Lime and Stone Company speaks volumes for Mr. Cobb's foresight, thrift and business ability.

The Clarkland place had for its sugar maker this year that well-known gentleman, Mr. E. C. Glynn, for several seasons instructor in sugar making at the Audubon Park Sugar School. Mr. Glynn's ability is too well known to need comment.

JANUARY 29.

WEEKLY MARKET REPORT.

1898.

SUGAR.	January 22.	January 24.	January 25.	January 26.	January 27.	January 28.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Quiet.
Strict Prime	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	2 1/4 @ 2 1/4	
Prime	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	2 1/4 @ 2 1/4	
Fully Fair	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	2 1/4 @ 2 1/4	
Good Fair	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	2 1/4 @ 2 1/4	
Fair	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 2 1/4	
Good Common	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	
Common	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	Steady.
Inferior	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 1/4 @ 2 1/4	2 @ 2 1/4	
Centrifugal.								
Plant'n Granulated	4 1/4 @ —	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	3 1/4 @ 3 1/4	
Off Granulated	— @ 4 1/4	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/4 @ —	
Choice White	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	
Off White	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	
Gray White	3 1/4 @ 4 1/4	3 1/4 @ 4 1/4	3 1/4 @ 4 1/4	3 1/4 @ 4 1/4	3 1/4 @ 4 1/4	3 1/4 @ 4 1/4	3 1/4 @ 4 1/4	
Choice Yellow	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	Strong.
Prime Yellow	4 @ —	4 @ —	4 @ —	4 @ —	4 @ —	4 @ —	4 @ —	
Good Yellow	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	
Seconds	2 1/4 @ 3 1/4	2 1/4 @ 3 1/4	2 1/4 @ 3 1/4	2 1/4 @ 3 1/4	2 1/4 @ 3 1/4	2 1/4 @ 3 1/4	2 1/4 @ 3 1/4	
MOLASSES.								
Open Kettle.								
Fancy	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ —	
Choice	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	18 @ 18	Strong.
Strict Prime	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	16 @ 17	
Good Prime	— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	14 @ 15	
Prime	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 13	
Good Fair	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 12	
Fair	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 11	
Good Common	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 10	
Common	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 9	Steady.
Inferior	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 8	
Centrifugal.								
Fancy	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ 10	
Strict Prime	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	— @ 9	
Good Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 8	
Prime	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 7	Strong.
Good Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4 1/2	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4 1/2	
SYRUP.	18 @ 22	18 @ 22	18 @ 22	18 @ 22	18 @ 22	18 @ 22	14 @ 16	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Quiet.
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.96 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	3.98 @ —	
Standard A	4.84 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	3.86 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Dull.
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	10s. 10 1/4 d.	10s. 10 1/4 d.	10s. 10 1/4 d.	10s. 10 1/4 d.	10s. 10 1/4 d.	10s. 7 1/4 d.	11s. 8 d.	Quiet.
A. & G. Beet	9s. 0 3/4 d.	9s. 0 3/4 d.	9s. 0 d.	9s. 0 3/4 d.	9s. 0 d.	9s. 0 3/4 d.	9s. 2 1/4 d.	

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 4.40	Strong.
Powdered	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 4.40	
Standard Granula'd	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 3.97	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5 1/4	— @ —	— @ —	— @ —	— @ —	— @ —	— @ 3.85	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Jan. 19	Tons	213,176
At four ports of Great Britain to	Jan. 15	"	108,000
At Havana and Matanzas to	Jan. 19	"	26,640

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JAN. 28, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	1,166	19,559	8,716
Sold	1,166	26,962	8,716

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO JAN. 28, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	17,269	1,154,771	163,846
Sold	17,269	1,000,815	163,846
Received same time last year	35,801	1,078,389	187,946

JANUARY 29.

WEEKLY MARKET REPORT.

1898

RICE.	Jan. 22.	Jan. 24.	Jan. 25.	Jan. 26.	Jan. 27.	Jan. 28.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	2 25@4 00	Quiet.
CLEAN, Fancy.....	5 5/8@5 1/4	5 5/8@5 1/4	5 5/8@5 1/4	5 5/8@5 1/4	5 5/8@5 1/4	5 5/8@5 1/4	5 5/8@5 1/4	
Choice.....	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	
Prime.....	4 3/4@4 1/2	4 3/4@4 1/2	4 3/4@4 1/2	4 3/4@4 1/2	4 3/4@4 1/2	4 3/4@4 1/2	4 3/4@4 1/2	
Good.....	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	
Fair.....	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	
Ordinary.....	3 3/4@4 1/2	3 3/4@4 1/2	3 3/4@4 1/2	3 3/4@4 1/2	3 3/4@4 1/2	3 3/4@4 1/2	3 3/4@4 1/2	
Common.....	3 1/4@3 3/4	3 1/4@3 3/4	3 1/4@3 3/4	3 1/4@3 3/4	3 1/4@3 3/4	3 1/4@3 3/4	3 1/4@3 3/4	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....	2 1/2@2 1/4	2 1/2@2 1/4	2 1/2@2 1/4	2 1/2@2 1/4	2 1/2@2 1/4	2 1/2@2 1/4	2 1/2@2 1/4	
BRAN, $\frac{1}{2}$ ton.....	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 00@10 00	Active.
POLISH, $\frac{1}{2}$ ton.....	15 00@—	15 00@—	15 00@—	15 00@—	15 00@—	15 00@—	16 00@17 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JAN. 28, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received	7,377	80
Sold	7,796	1,211

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO JAN.
28, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	388,487	8,041
Last year.....	362,988	8,770

Sugar.

At the end of the week the sugar market was quiet. The receipts from plantations, which were fair, met with sufficient demand to promptly absorb them.

Molasses.

The molasses market was strong for open kettle goods at the end of the week, and centrifugals were steady.

Rice.

The rough rice market was quiet and easy at the end of the week, with only a light demand. Clean was rather active, with a fair demand.

Sugar in London.

Apart from the fact that a substantial rise has taken place in the value of sugar, there is apparently no reason for the alteration in the aspect of the market. Sellers, however, predominate just now, and the speculative quotations of beet show a decline of 3d. per cwt. On the other hand, the cane market continues very firm, while American prices have been strong and dearer, the weekly meltings by refiners in that country remaining well in excess of the weekly landings. The receipts of sugar from Cuba in the United States are now beginning to attract attention, and while considerable damage is reported to have been recently done to the plantations, yet there is also disposition to improve the production, and a local authority estimates that the crop will reach 350,000 tons. The demand for cane refining kinds in the market has been good, while the supplies of grocery sugar offered were eagerly bought at prices which showed an advance of 6d. per cwt. on the last public sales of 1897. The imports of crystallized raws to London for the week ending 6th instant amounted to 1496 tons, against 1333 tons in 1897.

The refined market was active in the early part of the week for centrifugals, but has since

become quiet. Owing, however, to the moderate supply, prices remain about steady. Continental granulated was also in good demand, but owing to large tenders of ready sugars, and to some weak holders having pressed their sugar for sale, prices have fallen 1 1/4d. to 3d. per cwt. Cubes and cut loaf are in steady demand, and some kinds are 1 1/4d. dearer, but are still relatively cheap compared with any other sort of sugar. Dutch and Austrian crushed are in fair request at about last week's quotations, while syrup and molasses are selling fairly, and some of the medium qualities show exceptionally good value.—*Produce Markets Review*, January 8.

The Rice Market.

The following on the current rice market at home and abroad is taken from the weekly circular of Dan Talmage's Sons Company, New York:

In spite of contrary conditions in many other staples the movement in rice holds to former volume and quite ahead of the ordinary seasonable limits. The demand is not uniform as to locality; open weather and heavy winds in some, strikes and wage reductions in others, either modifying or bringing business to a standstill; these, however, may be termed incidental features, as the general trend of affairs is strong and encouraging. The chief call at this point continues on the highest grades of Java; these find special favor among those who have heretofore worked only Japan. Prices on latter are still "in the clouds" and little prospects of their getting down during the present year to a competitive basis with other sorts. Advices from the South note steady demand—on good to prime grades—along the Atlantic coast and an enlarging movement—ordinary to fair—in New Orleans and throughout the Southwest; each section holds more prominently of the styles suggested, and, therefore, to a certain extent are avoiding usual ruinous competition. Preparations for the new crop are going forward as rapidly as weather permits. As a result of the comfortable prices the present season the acreage will be considerably enlarged under normal conditions, with better methods and the extension of irrigating facilities in Louisiana, a bumper crop may be expected. Cables from Europe note firm and very generally advancing markets. The situation in the far East is without material change as to the outcome of its respective crops. Burmah promises a large yield, but as last year much of its crop was absorbed by India, so this year there will be a heavy call for it from Japan, whether to equal extent or not remains to be seen. The shortage in Japan is greater than the surplus in Burmah, but may be met by imports from

other localities or in part supplied by other products. The immediate outlook promises high average range of values in all styles of desirable character.

Talmage, Charleston, telegraphs Carolina crop movement to date:

Receipts, cleaned, 41,400 barrels; also 39,375 barrels. Steady demand and market pretty well cleaned up from day to day.

Talmage, New Orleans, telegraphs Louisiana crop movement to date:

Receipts, rough (inclusive of amount carried over), 429,395 sacks; last year 510,530 sacks. Sales, cleaned (estimated), 70,000 barrels; last year 82,300 barrels. Good general demand on ordinary to fair grades; higher styles only selling locally. Market firm.

Trade Notes.

New Orleans Acid and Fertilizer Company.—In another column will be found the advertisement of this concern, which is now selling its goods throughout the sugar district, and is actively engaged in pushing its business among the planters. The subject of fertilizers for sugar cane is one of great importance, and one which has attracted attention from many of the most eminent scientists and chemists of the world, the desideratum being not only to make the cane grow, but also to make it secrete sugar—a luxuriant growth availing little if the juice is not plentifully supplied with sucrose. The gentlemen operating the above company insist that, after years of study and consultations with eminent authorities, they have formulated the very plant food which sugar needs, and they suggest that their goods be given a trial by the side of other fertilizers, which would seem to be a fair proposition. See the advertisement for particulars.

Mr. W. W. Ventress, a prominent sugar planter of Iberville parish, was in the city on a visit a few days ago. Mr. Ventress registered at the Hotel Royal.

Capt. J. N. Pharr, of Glenwild plantation, was in the city on Wednesday, and put up at the St. Charles.

Mr. John B. Foley, of Assumption, was a recent visitor to New Orleans.

Mr. Walter I. Barton, of Ascension, and Mr. Carroll Barton, of Assumption, were recent visitors to the city, and registered at the St. Charles Hotel.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La.

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address GOTTLIEB KOELLE, 1938 St. Louis street, city. 1-21-98

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBRE, Central, La. 1-20-98

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. McCracken Bros., Eola La. 1-20-98

WANTED—POSITION AS STORE OR BOOK- keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address MAX P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR AS- sistant engineer; has had fourteen years' experience and can furnish first-class references. Address F. O. W., 844 Baronne street, city. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-18-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. G&O. H. DOUGLASS, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTA- tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address P. O. BOX 422, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. Franklin street, city. 1-13-98

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address COMPETENT, Box 649, New Orleans. 12-21-97

WANTED—POSITION AS ASSISTANT MAN- ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address E. O. W., Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN- Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address A. B., 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address C. LAURENT, Whitecastle, La. 12-28-97

WANTED—ENERGETIC AND STRICTLY SO- ber young man wants position as manager of small store on plantation, on salary or commission; gilt edge reference as to ability and character. Address B. B., 1025 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address W. T., care Daily Journal, Plaquemine, La. 12-23-97

WANTED—POSITION AS CLERK IN A COUN- try or plantation store; not afraid of work. Address CLERK, Postoffice Box 69, New Orleans, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt edge references. Address B. B., 1928 Bayou Road, New Orleans. 12-17-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address R. V. H., 129 Decatur street, New Orleans. 12-16-97

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898. At living salary. Address BOB, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and I. apides parishes and some New Orleans merchants. Address SMITH, care this office. 12-16-97

WANTED—A FIRST-CLASS PAINTER, AC- customed to country and plantation work, would like to obtain work either by the day or contract. Address BRUNO, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address E. C. MARSHALL, Cheneyville, La. 12-7-97

WANTED—By a young lady of several years' ex- perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address X Y Z, care PLANTER. 12-3-97

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address B, care of The Chief, Donaldsonville, La. 12-3-97

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address J. E. W. DAVIS, McCall, La. 12-4-97

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address HUSTLER, 1100 Dante street, New Orleans, La. 12-8-97

WANTED—A YOUNG FRENCHMAN, 24 years of age, desires a position in a sugar house or mechanical construction shops. Has had experience as mechanic in France and in the most important sugar houses in Cuba. Address M. N., this office. 10-22-97

WANTED—A POSITION ON A PLANTATION as centrifugal man, by a first-class sugar drier. Address H. A. WEALEY, care of Wm. Johnson, 7000 Magazine street, New Orleans. 9-28-97

WANTED—HOSTLER FOR MEDWAY PLAN- tation, Bayou Sale, St. Mary parish. Apply with reference to D. J. KER, North Bend Plantation, Foster P. O., La.

WANTED—A POSITION; A HANDY MAN ON a plantation; can furnish recommendation. Address Wm. J. TONLET, 413 Royal street, New Orleans, La. 11-8-97

WANTED—A POSITION AS SUGAR WEIGHER or clerk or fireman; can fill any with competency. Address A. J. CASTIN, 1529 Mandeville street, city. 10-20-97

WANTED—YOUNG MAN OF 26, SOBER AND industrious, wants a position as assistant sugar boiler or chemist of some sugar factory or estate in Cuba, Hawaii or Mexico; have had fourteen years of practical experience in manufacture of sugar. Address SUGAR, Waggaman P. O., Jefferson Parish, La. 11-7-97

WANTED—BY A RELIABLE MAN OF EXPE- rience, a position as sugar maker; well up in the management of central factories. Address SUGAR MAKER, No. 1716 Baronne street, New Orleans. 10-14-97

WANTED—A POSITION AS SUGAR DRIER by a competent man, who can furnish good references. Address ALPHONSE CARRILLOUX, Detention Camp, Waggaman, La.

WANTED—A POSITION AS A SUGAR MAKER; willing to do his own polarization; has had eighteen years' experience; can furnish reference. Address ALFRED ROUSSEAU, this office. 11-4-97

WANTED—A POSITION AS SUGAR DRIER; has had eighteen years' experience; can furnish good reference. Address M. MONTÉGUDO, 437 English street, city. 30-10-97

WANTED—A POSITION AS CARPENTER AND millwright; understand putting up shafting and setting up machinery; twenty years' experience. Address GEORGE HINMAN, Franklin and Josephine streets, New Orleans, La. 11-1-97

WANTED—BY PARTY OF SEVERAL YEARS' experience in sugar manufacture and refining, a position in Louisiana or Mexico; have superintended work in both refineries and factories; can give testimonials from all former employers. Address H. S. R., Box 1336, New Orleans, La. 11-9-97

WANTED—TWO COMPETENT DOUBLE effect men. Apply 218 Canal street, city. 10-20-97

WANTED—POSITION AS STENOGRAPHER and typewriter, by a competent young lady; excellent references. Address STENOGRAPHER, care M. R. Powers, 704 Common street, New Orleans. 11-6-97

WANTED—BEST SUGAR ENGINEER, HAVING had large practice in designing beet sugar houses, and with experience in erecting and running, would like to connect with some new company or manufacturer of sugar machinery; best of references and satisfaction assured. Address SUITABLE, care LOUISIANA PLANTER. 11-2-97

WANTED—A COMPETENT AND EXPERI- enced machinist and sugar plantation engineer wishes to engage by the year with good people at a small salary; references good; habits strictly sober; time to begin January 1, 1898, or to suit agreement. Address P. H. E., Engineer, 734 Dublin street, Carrollton, La. 11-7-97

WANTED—A MAN WITH PERFECT AC- quaintance with the Spanish language, both in speaking and writing, and some knowledge in book-keeping, to take responsible office position on sugar estate in Mexico; must have unexceptional references and be willing to begin on a small salary; a good opportunity and first-class position to satisfactory person. Address, with age, nationality, and other details, B. F. JOHNSTON, 825 Warren avenue, Chicago, Ill. 11-10-97

WANTED—POSITION AS VACUUM PAN sugar maker; has had long experience, and can furnish evidence of competency. Address H. S. LEWIS, 602 Gravier street, City. 11-10-97

300 ACRES OF FINE SUGAR LAND FOR SALE OR RENT.

This tract of as fine sugar land as can be found in the sugar belt, is situated just above Darrow and nearly opposite Donaldsonville, contains residence and all necessary buildings, and is traversed by a tramway leading to Hermitage sugar factory, thus offering easy facilities for the disposition of cane. There is some seed cane on the place. Seekers of fine sugar land will do well to call on or address

MRS. L. P. VON HOFE,

Darrow P. O., Ascension Parish, La.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

NEW ORLEANS, LA., FEBRUARY 5, 1898.

No. 6.

THE LOUISIANA PLANTER

AND
SUGAR MANUFACTURER,

OFFICIAL ORGAN OF THE

*Louisiana Sugar Planters' Association,
Ascension Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.*

Published at New Orleans, La., every Saturday Morning

BY THE

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Devoted to Louisiana Agriculture in general, and to
the Sugar Industry in particular, and in all its
branches, Agricultural, Mechanical, Chem-
ical, Political and Commercial.

EDITORIAL CORPS:

W. C. STUBBS, Ph. D. W. J. THOMPSON.
W. W. PUGH. JOHN DYMOND.

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6 inch.....	28 00	70 00	105 00	140 00
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Sugar by Sail for New York.

The bark Hiram Emery, of Boston, went to sea last Saturday with a large cargo of sugar, molasses and rice bound for New York. The vessel was loaded here by Mr. Gustave A. Jahn and carried 4500 barrels of rice. The vessel was loaded at the sugar landing at the head of Conti street.

The purchase of this sugar and the sailing of this vessel to New York, carrying away some 700 tons of sugar, indicates the relative lowness of our market, as compared with the New York market. The accessibility of the sugar-consuming sections of the Western States from our market should certainly lead to as high values for sugar here as in New York. We now find, however, that the sugars have been so low at this point that it has been possible to buy them here, ship them to New York, and there dispose of them to the same Western buyers, or to buyers under like conditions, notwithstanding the cost of the transfer from New Orleans to New York. This cost, which aggregates nearly three-eighths of a cent per pound, is thus lost to the Louisiana producer. If there was a competent demand in this market for sugar, and for refining, then of course prices would be as high here as in New York, and this difference in values, sufficient to transport the sugar from one point to the other, could not exist. Unfortunately for the sugar producers their movement inaugurated some years ago to build a sugar refinery of their own did not materialize, and the sugar producers of this State are now left under the control of but few buyers, who would seem to have organized with a view of paying as little for sugar as they can, the only limit to the lowness of their bids being the diversion of the sugar from this market to competing markets on the Atlantic coast. Let us hope that this condition will not exist much longer.

The Louisiana Planter and Beet Sugar.

A distinguished consulting engineer and contractor for cane and beet sugar machinery writes to THE LOUISIANA PLANTER from New York, requesting a number of copies of our issue of January 8, in which was published the report of the LaSalle county committee, which visited Grand Island, to examine into the sugar beet and beet sugar industry. He says that this is just such a report as is needed to spread around among the farmers who contemplate raising beets. He writes further that he is glad to see our journal giving so much attention to the beet sugar industry, which will soon outrank cane in the United States unless we can get in Florida and Texas; that there are several localities in New York State considering the erection of beet sugar houses to handle from 400 to 500 tons of beets per day; that this business of beet sugar raising is going to be the coming business of the United States. We need hardly say that we quite coincide with the views expressed by our correspondent, and believe with him that the beet sugar industry is destined to an enormous and rapid development in the United States.

On the other hand we believe, now that the central factory system is fairly launched in the Gulf States, there will be an enormous development of the cane sugar industry all along the coast from Florida to Texas. The area of lands adapted to the production of sugar cane in the gulf States is simply immense, and we think that the two industries, the cane and the beet, can readily join hands and together soon supply the United States with all the sugars that will be needed.

A Sugar Factory at Rayne.

The last issue of the Rayne Tribune comes out with a leading editorial advo-

cating the building of a sugar factory at Rayne for the encouragement of the cane growers of that vicinity. Considerable sugar cane is now grown about Rayne, and has to be transported considerable distances to central factories eastward along the line of the Southern Pacific road. A central factory at Rayne would secure an immense amount of this cane without any railroad transport and largely develop the local culture, and doubtless sufficiently to insure a competent supply for a first-class establishment. The business men of Rayne have been holding some meetings to consider this matter, and it is said that they stand ready to give a bonus to any capitalist or corporation that will build a sugar factory there. It is said, further, that enough planters can be found who will sign contracts to raise a sufficient amount of cane to supply the factory.

Guinea Grass.

In a recent issue of the *Florida Agriculturist* reference is made to a recent paper on forage plants of Florida, and exceptions taken thereto because of the non-mention of Guinea grass excepting to confound it with Para grass. Guinea grass is frequently referred to in our Jamaica correspondence, and the article referred to says that it was introduced into Florida about twenty-five years ago from Jamaica by the late Colonel Codrington, who was for many years editor and owner of the *Florida Agriculturist*.

The writer indicates that it is propagated by the roots, and he has never found anything in Florida equal to it as a forage plant. He says that when it is once planted it is there to stay, and will stay just where it is planted, and only grows in bunches.

In Louisiana we have known Guinea grass for a long time; in fact, it is stated that it has been grown here for fifty years, and has been a curse to those plantations upon which it has been propagated. Here it spreads itself by the roots, which are never killed by any frost that we have, and it probably spreads itself also by its seed, which seem to be well developed every year. Its spread from its seed, however, seems less well ascertained, as the grass grows chiefly in those fields where the roots are scattered about by ploughing and harrowing, and rarely appears at distant places, except where the roots may

have been dragged on plows or from similar cause.

Within the last twenty years we have come to know Johnson grass, the name we believe coming to us from Alabama. Dr. Stubbs has repeatedly given the genesis of this grass in Alabama, but its actual identification with our previously known Guinea grass has not yet been established, although the two grasses seem to be the same. The grass will not grow in winter, but its development with the spring weather is very rapid and it grows the year around until frost comes in the autumn. It will choke out any ordinary crop where it is not suppressed by active cultivation, and in the common judgment no greater curse can befall the plantation than the introduction upon it of either Guinea grass or Johnson grass.

The Burmah Rice Crop 1897-98.

Our Calcutta correspondent, under date of December 30, 1897, says that the total area under rice cultivation in the fourteen chief rice-producing districts in Lower Burmah is now estimated at 5,524,368 acres, or 313,080 acres more than the area actually under cultivation last year, and 10,878 acres more than the area reported last month. Crop prospects are very good everywhere. It is estimated that there will be available for export 1,925,000 tons of cargo rice, equivalent to 32,627,100 cwts. of cleaned rice.

From these figures we may judge of the immensity of the rice crop in the East Indies, of which Burmah is but a fraction.

Sugar Beets at Ottawa, Ill.

THE LOUISIANA PLANTER is advised by Mr. C. E. Fisher, of Ottawa, Ill., of the committee that went to Grand Isle, Neb., to investigate the beet sugar industry there, that a large number of farmers in the vicinity of Ottawa will plant quarter to half acre experimental patches of sugar beets this season. It is hoped that success will result and secure the erection of a sugar factory at Ottawa.

The Foundrymen's Association.

THE LOUISIANA PLANTER acknowledges the receipt of an invitation to attend the seventy-fifth meeting of the Foundrymen's Association, to be held at

the Manufacturers' Club, Philadelphia, Wednesday evening, February 2. The programme included an address by Mr. Lenson H. DeVoe, of the Staten Island Clay Company, on Cupola Linings, and by Mr. W. H. Pfahler, of the Abram Cox Stone Company, Philadelphia, on the Foundrymen's Protective Association.

Louisiana Sugar Planters' Association.

The regular monthly meeting of this association will be held Tuesday, February 10, at 7:30 P. M., at 339 Carondelet street. The subject chosen at the last meeting for discussion at this meeting is *The Handling of Cane at the Carrier*. As many new devices have been tested this last season and wonderful economies effected, a very interesting discussion is expected. All persons interested in the sugar industry, directly or indirectly, whether members of the association or not, are cordially invited to attend the meeting.

Louisiana State Agricultural Society.

One of the most successful annual meetings of this well-known organization was held last week at Crowley, January 26, 27 and 28. The programme of the proceedings has already been published in these columns, but some slight variations therefrom were had owing to the absence of some gentlemen from causes beyond their control. The opening session was held Wednesday evening after the arrival of the train from the East, when Hon. P. J. Chappuis, ex-mayor of Crowley, welcomed the guests to the hospitality of Crowley and to the parish of Acadia, in his usual felicitous manner. Ex-Mayor Chappuis is one of the most enterprising gentlemen in Southwestern Louisiana, an attorney of distinguished ability, and one of the leading young men in the State, and destined to make his mark in the management of public affairs. The afternoon session was concluded with the annual address of the president, Hon. John Dymond, of Plaquemines parish, in which he considered the wonderful progress made in Southwestern Louisiana, the location of the present meeting of the society, the origin and motives of the organization in the furtherance of advanced agriculture; the causes of the present depression in our industries, in

which we are too largely engaged in *one-crop* farming, believing that we had a monopoly of our semi-tropical crops of cotton, cane and rice, and that permanent relief could only come from the dispelling of this deceptive idea that we had this monopoly and our engaging in more diversified agriculture with the resulting diminution in our indebtedness and a diminution in the risks in our agricultural calling, which is sufficiently hazardous at the best. Mr. Dymond gave special consideration to the crop lien laws of this State, which, owing to the facilities thereby obtained for getting credit, led to the granting of credit to parties who would ordinarily be considered quite irresponsible, thus damaging the whole credit system. He held that the good men could always get all the credit they really needed, and the crop lien law only resulted in securing credit to those less well entitled to it; to the over-production of our semi-tropical crops and to the general agricultural distress now prevailing. In subsequent discussions this view of the damaging effect of the crop lien laws was thoroughly sustained by all those participating in the discussion.

Mr. Dymond held that the agricultural progress of the Western States, which was so steady and so great as to be beyond anything we have knowledge of here, and was had without the aid of crop lien laws; that the great development of schools, colleges, libraries, churches, and general agricultural and commercial facilities in the Western States was founded upon the conditions prevailing there, and that unless we should be equally prudent, equally conservative and equally enterprising, we should long be deprived of the advantages already possessed by our co-workers in the West.

In the evening session Col. Charles Schuler, of De Soto parish, one of the most practical and successful farmers in this State, and one who is able to infuse his progressive ideas and economic methods into the minds of others, delivered a discourse on *How to Make the Farm Profitable*, which led to quite a general discussion of the whole subject matter.

Judge Emile Rost's paper on the *Sugar Industry of Louisiana, Especially with Reference to Its Extension to the Prairies*, was delayed until the last day

of the session, owing to the author's detention in New Orleans by public business. Judge Rost's paper was a careful review of the condition of the sugar industry of Louisiana and its progress under the new conditions recently developed, and its prospective enormous increase now that the central factory idea was well developed, and that the farmers of the prairies in the western part of our State were giving more and more attention to this excellent crop.

Mr. C. L. Crippen, of Crowley, read a valuable historical and statistical account of the *Progress and Development of the Rice Industry in Southwest Louisiana*. His subject is one of the agricultural phenomena of our country. Mr. Ben Avant, of Lafayette parish, who was on the floor, stated that he was one of the first who had ever marketed rice in Southwest Louisiana, and that he had thought he had sent a considerable quantity to New Orleans when he succeeded in getting some eight or ten barrels into that market. When we reflect that Acadia parish alone produced nearly a million barrels some five years ago, we may readily imagine the interest excited by Mr. Crippen's well-worded, carefully stated and highly interesting account of this transformation scene in the Western prairies.

Mr. A. V. Eastman, of Lake Charles, read a paper on *Immigration into Louisiana*, the resources of our State, the attractions that it presents and the results that have already been realized by many of those who came into it. His paper excited general interest and was one of the features of the occasion.

Major J. G. Lee, Commissioner of Agriculture, discussed the subject of *Farmers' Institutes*, something of a novelty in Louisiana, and only introduced by him during the last year. This most excellent method of disseminating agricultural information among the farming community, which has long been in vogue in most of the Western States and has accomplished such a wonderful amount of good there, promises equally large and satisfactory results in Louisiana, and all of the farmers of our State are greatly indebted to Major Lee for the keen interest that he has exhibited in the matter, the energy with which he has carried out his ideas, and we shall hope that the future will bring to him the satisfaction of seeing the Farmers'

Institute an accepted and well sustained feature in our agricultural life.

Owing to Mr. W. W. Duson's illness, his paper on *Drainage for Profit and Wealth in Southwest Louisiana* was read by ex-Mayor Chappuis. Mr. Chappuis was in good voice and read Mr. Duson's paper in admirable style, and it was one of the most effective contributions to the occasion. While Southwest Louisiana is a vast prairie section of our State and the prevalence of pools of water on its surface during the winter season would seemingly indicate great difficulty in drainage, it is found that the four or five large water courses penetrating through the prairies far into the interior and the numerous small water courses leading into all these, afford easy drainage for the whole country, a drainage that can be accomplished at less cost than that of similar regions in the State of Illinois, and in a country wherein drainage produces the most magical result in changing the character of the vegetation and enabling the production of all kinds of crops. Truly proper drainage will bring profit and wealth to Southwest Louisiana.

Mr. T. Jay Lacy, of St. Landry, delivered an address on *Fruit Growing in Southwest Louisiana*, but concentrated his attention chiefly upon pear culture.

Mr. Ben. Avant, of Lafayette, followed with a paper on *Tree Culture*, naming those trees that would grow rapidly, furnishing wood fence posts, etc., for the prairie regions where such methods are adopted to some extent in lieu of the purchase of timber from a distance, although the facilities for transportation are now so great that the scarcity of timber which formerly existed in this direction may be said to exist no longer.

One of the most interesting papers read was that of Prof. W. Dodson, botanist of the Louisiana State University, on Red Rice. This paper will appear in this journal and is the first scientific contribution in this direction that has been our good fortune to have met with. Professor Dodson holds that red rice is an entirely separate variety; that it is not a deteriorated rice, but simply a separate variety that will cross on to the white rice, producing all intervening shades of red, just as red and white corn will mingle with each other when planted

adjacent. Professor Dodson's essay on this subject will be found interesting to all those engaged with rice.

The third day of the session was devoted to the Louisiana Stock Breeders' Association, and Major W. L. Foster, of Shreveport, so well known in stock circles as a breeder of high-grade Berkshire hogs, delivered his annual address, in which he reviewed the facilities offered in this State for stock breeding. The people of Louisiana seem to be over-modest in estimating the value of their own resources, and it is only by hearing such papers as this of Major Foster's and many others delivered upon this occasion that we can have any conception of the enormous capacity of our State agriculturally. It would seem that it is only three-cent sugar, five-cent cotton and a-dollar-a-bag rice that can bring us to a proper realization of our resources in other directions. As a preventive against these remedies brought about by dire necessity, would it not be well enough to avail in advance of some of our resources and keep the wolf necessity from the door as long as possible?

Major Foster's paper was followed by one upon the value of pure bred live stock, their care and management, by Mr. S. Q. Hollingsworth, of Coushatta, Red River parish. Mr. Hollingsworth was unable to be present and his paper was read by the secretary. It was one of the most valuable contributions to the meeting and clearly brought out the great value of thoroughbred live stock from a purely economic point of view, the same amount of food and care devoted to thoroughbred stock giving double or triple the income that would result were the same given to scrub stock.

Mr. W. B. Mercier's contribution on beef raising and fattening was also read by the secretary and was a valuable paper, bringing out considerable discussion as to our resources in that direction.

Dr. W. H. Dalrymple, veterinarian of the Louisiana State University, and secretary of the society, delivered an exhaustive address on *Texas or Southern Cattle Fever*. This is a matter not very well understood, and Dr. Dalrymple's very clear exposition of the whole matter, showing the immunity of our own cattle within our own lines; the liability

of Northern cattle brought within our lines, and the tendency of our own cattle to communicate the fever through ticks when our cattle are carried beyond the so-called quarantine limits, were all ably discussed by Dr. Dalrymple, and full explanations given as to the present experiments being carried on for cattle dipping in vats wherein the water is covered with West Virginia oil, the complete bath given to the cattle passing through it being found to exterminate or nearly exterminate all the ticks and thus greatly lessening the danger of the communication of the fever to them.

The subject chosen by Mr. W. S. May, of Ruston, *Can Louisiana Supply Home Demands for Meat, Dairy Products and Feedstuffs*, was well discussed by various members of the society and with a general affirmative answer.

The Stock Breeders' Association then received the reports of its committees and elected its officers, Major Foster being unanimously elected as president, than whom no better selection could have been made.

The Agricultural Society then resumed its session, receiving the reports of its various committees, including the report of the committee on resolutions, which was as follows:

The committee on resolutions beg to make the following report:

Resolved, That the hearty thanks of the State Agricultural Society be tendered the good people of the city of Crowley for the generous hospitality they have extended to delegates and visitors to this convention.

The thanks of this society is especially due and is hereby tendered to the ladies and young gentlemen of Crowley, who were so kind in entertaining us with their charming music.

Resolved, That the thanks of this society be tendered to the public press of this State for its generous aid to the cause of agriculture, and personally to H. H. Hargrove, of the New Orleans *Picayune*, and J. M. Taylor, of the Crowley *Signal*, who have taken such pains to report the proceedings of this meeting.

Resolved, That the thanks of this association be tendered to Dr. W. C. Stubbs, director of the State experiment stations, for the valuable service he and his able assistants are rendering the State in the cause of agriculture.

Resolved, That we commend the excellent work done by the Louisiana State University and Agricultural and Mechanical College.

Resolved, That the president and secretary of this society be directed to petition, in the name of the society, the constitutional convention for the removal of restrictions now existing in the present constitution on the expenditures for the advancement of the agricultural interests of this State.

Resolved, That we heartily endorse the action taken by the farmers and others in some of the parishes who have been inaugurating annual stock shows, and we hope that these efforts will result in the establishing of annual parish fairs and finally that of a State fair.

Resolved, That the president and secretary of

this society be directed to petition to the General Assembly of this State for an adequate appropriation for continuing these farmers' institutes in this State on a large scale.

Resolved, That this society congratulates the efficient commissioner of agriculture upon his successful inauguration of farmers' institutes in this State, and testify to the good already accomplished by them.

Resolved, That the thanks of this society are hereby tendered to the State Bureau of Agriculture and Immigration, and especially to its efficient commissioner for the earnestness he has displayed in the discharge of the duties of his office.

Resolved, That we earnestly recommend to the planters and farmers of Louisiana, to organize local agricultural societies in every parish, auxiliary to the State society.

Resolved, That all local agricultural societies be requested to send delegates to our meetings.

Resolved, That this society commends the action of those public juries who have sent delegates to this meeting, and urges upon other parishes to do likewise at future sessions.

Resolved, That the farmers of Louisiana invite to our State immigrants from other States, with the assurance that they shall find fertile lands, a delightful climate, a hearty welcome and happy homes.

Resolved, That the thanks of this association are hereby tendered to the Illinois Central, Southern Pacific, Kansas City, Watkins & Gulf, Yazoo & Mississippi Valley, Missouri Pacific, Queen & Crescent and Cotton Belt railroads for their good work in promoting immigration to Louisiana from the Northwest. We trust that their example will be followed by other railroads of the State.

Resolved, That this association recommends as a solution to present depression caused by low prices of farm products, intensive instead of extensive farming, diversification of crops, more attention to stock raising, making the farm self-sustaining, economy of outlay on a cash basis, and raising cotton, tobacco, rice or sugar as a money crop.

Resolved, That the public schools of the State, although showing marked improvement during past years, need to be fostered, increased and encouraged in every way, and that all good citizens of the State should assist in this all-important work.

The resolutions were unanimously adopted.

The committee on organization reported its recommendations for the reelection of the old officers of the organization, including Mr. Dymond as president and Dr. W. H. Dalrymple as secretary, after which the meeting adjourned.

The good people of Crowley were constant in their efforts to render the meeting a success. The local committees provided exquisite music from the amateurs of the town. Col. G. G. Zenor, of St. Mary, who was in attendance as a delegate from that parish, added much to the enjoyment of the occasion by a charming recitation that he gave and his witty and brilliant discussions of the various subjects that came up. Mr. Lucius Forsyth, Jr., manager of the Caffery central factory, St. Mary, was present during the session, an active and able participant in many of the dis-

chansons. Dr. W. C. Stubbs, State chemist, Professor of Agriculture in the Louisiana State University and director of the several experiment stations, lent his valuable aid in all the discussions, and his encyclopedic knowledge was constantly drawn upon by the many earnest inquirers after agricultural truth.

The session ended Friday night, and most of the members that came from the eastern part of the State returned homeward on the midnight train. Thus ended one of the most effective and enjoyable sessions of the Louisiana State Agricultural Society.

Secretary of Agriculture Wilson on the Possible Influence of Importation of Hawaiian Sugar on Beet Sugar Production in the United States.

The letter from Secretary of Agriculture Wilson in response to the Senate resolution of January 14, 1898, has already been commented upon in these columns, and we have endeavored to show some of the fallacies in Mr. Wilson's line of reasoning. We have now received the actual text of Mr. Wilson's letter, which was dated January 17, directed to the vice president, and reads as follows:

The average amount of sugar imported into the United States annually from 1893 to 1897, inclusive, was 1,830,482 tons of 2240 pounds each, valued at \$101,575,293. The importation during the fiscal year ending June 30, 1897, was 443,323 tons more than the average of the four preceding years, which was 1,752,617 tons, owing to the desire of importers to anticipate the effect of the tariff act pending in Congress during the last months of that year.

The average importation of sugar from the Hawaiian Islands from 1893 to 1897, inclusive, was 149,456 tons, valued at \$9,973,924. The importation for the fiscal year of 1897 was 192,508 tons, being 43,052 tons above the average of the preceding four years. During 1897 the Hawaiian sugar was 9.1 per cent. of the amount consumed in the United States. From 1893 to 1897 it was 7.1 of our consumption.

The beet sugar consumed in the United States in 1896 was 18 per cent.; in 1897 it was 45 per cent. of the total consumption. The disturbed condition of Cuba doubtless caused much of this marked increase, but the beet sugars from countries in continental Europe are those from which we may expect the most active competition. The production of beet sugar in the United States in 1897 was 41,347 tons of 2240 pounds each; of cane sugar, 289,009 tons; of maple sugar, 5000 tons, and of sorghum sugar 300 tons.

The total domestic product was 335,656 tons. The total refined product of imported sugar was 1,760,607 tons, making the total annual consumption 1,096,263 tons.

From the foregoing it appears that 84 per cent. of the sugar consumed in the United States was imported.

A prominent question is, can this Hawaiian production be greatly increased in competition

with the American farmer? Free entry into the United States from these islands has given great encouragement to the production of sugar, and the industry has been developed very rapidly. We must take into consideration methods of cultivation in Hawaii before we can certainly conclude what the future of the industry will be in that direction. Sugar cane is grown continuously on the same land in Hawaii, and for this reason the soil is being exhausted. The planters are now compelled to buy commercial fertilizers. The three elements of plant food most necessary to vegetation are nitrogen, potassium and phosphoric acid. Hawaiians will find saltpetre in Chile, potash at the Stassfurt mine in Germany, and phosphates in Florida. Guano on the islands of the Pacific is being exhausted and is quite expensive. When it becomes necessary to fertilize the soil in order to grow a crop, the expense becomes a considerable item and must be considered in determining what the effect of competition would be on American sugar growers.

Sugar will be grown in the United States by American farmers. The Department of Agriculture has been experimenting in two-thirds of the States of the Union during the past year, and will experiment in all the States during the coming year to ascertain where we can grow sugar-producing plants most profitably. A detailed report now being prepared for Congress will show the results of the work. The indications that come to us regarding our past season's work are that there is a wide extent of country from the Atlantic to the Pacific where sugar beets can be profitably grown at an additional money crop.

The \$100,000,000 now paid for sugar is a great incentive, and numerous factories are planned and arrangements for growing beets are being in many States. The per cent. of sugar in the beets in many parts of our country is much higher than the average in Europe. Sugar beets will be grown most profitably by the American farmer in connection with dairying or meat production. They will not be grown successively on any one piece of ground, but will become a feature of rotative systems, alternating with the grasses, legumes and the grains that recuperate the soil and store it with plant food, suitable for growing the beet on any one piece of ground once in every four or five or six years. Nitrogen will be replaced by the clovers and other legumes. Potash and phosphoric acid will become available in most of our soils while they are resting in grass.

The American farmer can grow the sugar beet profitably for the dairy cow, young animals and fattening stock, if the sugar is not extracted at all; the Hawaiian has not these auxiliaries. The pulp of the sugar beet contains all the nitrogenous matter of the plant. If this is taken back to the farm and fed to stock, and through that instrumentality returned to the soil, sugar beets can be grown perpetually on the same farm without at all reducing the fertility of the soil, because the sugar comes from the carbon dioxide of the atmosphere and takes no element of fertility from the land.

The first sugar beet factories established in the United States imported machinery from continental Europe. The ingenuity of our people has been at work and has gradually supplanted every piece of machinery imported, so that both in the field and factory American machinery is superseding the foreign and enabling the American farmer and factory owner to do the work more expeditiously and economically.

These considerations lead me to conclude that the system of agriculture pursued in Hawaii, which is certainly reducing the fertility of the soil, can not compete with a system of farm management in the United States where the fertility of the soil is not at all reduced. We consume in the United States about 2,000,000 tons of sugar. Something like a million acres

devoted to this purpose would produce all the sugar we import into our country at the present time, or ten acres grown on each one of 100,000 farms in rotation with other crops would meet home demands and do no injury to the soils.

The American farmer will use this crop to diversify the farm system. The Hawaiian sugar grower is a one-crop man, and wherever one crop is perpetually grown, be it wheat or maize, beets or cane, cotton or tobacco, the available plant food in the soil is certain to be reduced below the point of profitable production, and fertilizers are required.

With regard to the ability of the United States to produce sugar, the States north of Virginia, and including that commonwealth, have demonstrated within the past year that the conditions are all favorable for profitable production. We intend, during the coming year, to ascertain where the sugar beet can be profitably grown in the States south of Virginia. Where it may be ascertained that the sugar beet will not grow profitably in the South, and where ribbon cane will not succeed, we will introduce the sorghum sugar cane seed. The Department of Agriculture has been selecting and developing this plant during the last seven years, until it contains as high a per cent. of sugar as found in the sugar beet. The average sugar content necessary to the profitable production of the sugar beet is about 12 per cent.

The Lehi factory in Utah has been running for several years profitably with an average of sugar in the beet of 12 to 13 per cent. Our selected sugar cane gives us an average of 14 per cent., and runs as high as 20 to 22 per cent. in some cases. The department has been using the same methods of selection in developing sorghum by the polariscope that have been in vogue in France and Germany for forty years past in the selection of mother beets. Wherever we find that sugar beets will not grow profitably in the Southern States, we propose to introduce this high-heredity sorghum seed. Sorghum molasses is made extensively all over the United States. The census of 1890 shows that in 1889 the United States produced 24,235,219 gallons of sorghum molasses, and in 1897 we made 300 tons of sorghum sugar. It is popular with the people; it is made in small neighborhood mills, and the manufacture is being greatly extended.

An additional reason why the Department of Agriculture proposes to encourage the growing of first-class sorghum in the South is that the farmers of that section require a carbonaceous forage plant to feed with their cotton-seed cake. The State of Georgia, for example, produced 600,000 tons of cotton seed in 1897. If properly balanced with carbonaceous fodders, the cake of that one State would have finished the 390,000 cattle exported from this country last year. The sorghum plant is highly carbonaceous and will answer this purpose admirably. It grows vigorously in dry soils where maize and other grasses do not thrive. Whether sugar is produced from beets or cane, it is done most profitably in connection with farms having all the departments properly balanced. The Northern States have the dairy and feed yard; the Southern States may have them as well. The production of sugar can be incidental in both sections of the country to the feeding of animals. Hawaii has nothing of this kind. The cane is grown; it is hauled to the mills; the bagasse is not returned to the soil; the available plant food is reduced, and the planters must search to the ends of the earth for fertilizers. This is expensive, and they can not permanently compete with farmers who make the growing of a few acres of sugar beets or sorghum incidental to other agricultural operations on the farm.

Sugar production in Hawaii is carried on with coolie labor under contract systems. That will vanish if the islands become subject to our laws, when the laborer there will re-

ceive the same wages he now gets in California.

Hawaii then will not seriously compete with sugar producers in the States. When the people of those islands come to consider, with scientific assistance, the possibilities of coffee production that can be extended over much of the limited sugar belt, it will be found that in that industry they have a monopoly with which no State in the Union can interfere. It is a singular fact that no scientific improvement of the coffee tree with regard to the excellence of the berry and increased yield of the tree through intelligent selection has ever been made. The climate of these islands is admirably adapted to the production of many fine fruits that can not be grown in any of our States. They can grow many choice subtropical and tropical fruits that have never been scientifically developed, the improvement of which would lead to very profitable production. In these directions the farmers of the States could not compete with Hawaii.

A careful consideration of Mr. Wilson's letter reveals several inaccuracies in it, or at least his attempt to make the Hawaiian situation appear less dangerous to our American sugar interests than it really is. For some cause Mr. Wilson bases his sugar statistics on the average of four years. As our consumption is increasing at least a hundred thousand tons per annum, a four years' average is no proper indication of the present total importation. In like manner the four years' average importation from Hawaii into the United States is not a fair statement of what is now doing in that direction. This journal published an official statement from the Sandwich Islands recently, indicating the production of 250,000 short tons during the calendar year. Mr. Wilson reports the importation of the fiscal year of 1897 at 192,508 tons. We know of no fiscal year of 1897, and presume that he means the United States fiscal year of 1896-97, ending June 30, 1897. Again, we presume that his figures indicate long tons, a ton unknown in the United States unless it be so specified.

Mr. Wilson holds that the hundred million dollars now paid for sugar will be a great incentive to the beet growers of the United States, and that they will engage in rotative systems of agriculture, alternating with grasses, legumes and grains, in order to recuperate the soil, while with the Hawaiians, he thinks that they will be obliged to find saltpetre in Chili, potash in Germany, and phosphates in Florida. It must be his familiarity with the fact that the American farmers are already immense consumers of saltpetre from Chili, potash from Germany and phosphates from Florida that leads him to conclude that

the Hawaiians will seek the same sources for a supply of fertilizers. May not the Hawaiians, who are certainly enterprising people, look also in the direction of leguminous crops for competent fertilization of their lands that have not been exhausted by a hundred years of sugar cane culture, as have those of Louisiana, or by 200 years of such culture as have some of those of the British West Indies?

Mr. Wilson, with an optimism that is hardly justified by the facts of the case, says that the American farmer can grow the sugar beet profitably for the dairy cow, etc., and that the Hawaiian has not these auxiliaries; that the ingenuity of our people has been at work and supplanted foreign beet machinery. He seems oblivious to the fact that one of the largest factories now constructing in California has all its machinery coming from Germany. The whole of Mr. Wilson's letter seems to be an *ad captandum* argument in favor of Hawaiian annexation. What interest he can have in such annexation when it so seriously imperils the development of the beet sugar industry in his own and the adjacent States, we can not divine. Certain it is, that the direct development of the beet sugar industry promises to occur chiefly in the Western States of the Union and those are the States that are now invaded by these treaty-free, semi-slave, Hawaiian sugars, which it is now proposed to fasten upon us permanently by annexation. Mr. Wilson indicates what is possible in the Western and Southern States; but his optimistic view of our own possibilities is not likely of realization for a half a century to come. All of the economic methods that he so well describes are absolutely essential to success in sugar production in Europe, and until distress drives Western and Southern sugar producers to equal care and economy, these ideal conditions, so well described by him, will not be reached. Perhaps Mr. Wilson would like to see our sugar industry destroyed, or severely injured by undue competition, so that his ideal condition, of all the beet pulp to be fed to the cattle, and the proper rotation of crops, and the bagasse to be returned to the soil, etc., be realized. He seems willing to reduce our Western and Southern beet and cane cultivators into small farmers each growing a few acres

of cane or sugar beets, or sorghum, incidental to the other agricultural operations on the farm.

It will be noticed that Mr. Wilson in his recitation of the possible advantages of the Americans over the Hawaiians strives to find some advantage that the Hawaiians may have. He forgets their semi-slave labor system, their fine fertile volcanic soils, their competent supply of water for irrigation, their tropical climate and continuous sunshine, their enormous yields of sugar cane and of sugar, but does find that in Hawaii they can grow many choice subtropical and tropical fruits, and that they can grow coffee there, and that in these directions the farmers of the States could not compete with the Hawaiians. These directions having been specified so carefully by Mr. Wilson, he must desire us to infer that we can successfully compete with the Hawaiians in sugar production; that all we need is to be reduced to the growing of a few acres of sugar beets or sorghum, incidentally to other agricultural operations on the farm. It will be noticed that we quote his own words.

Secretary Wilson is too good a man for us to suspect that he has been paid for his argument in favor of Hawaii so carefully introduced into this letter to the United States Senate. It does seem, however, that he has lost his usual level-headedness and is simply following the dicta of the party leaders, and that his letter to the Senate is the best apology that he can make for the action of the coterie favoring annexation.

The Living Age.

The Living Age issues for January show that the spirit of its founder still lives; but they show more. Their contents are gleaned from a wider field, and there is an up-to-dateness in the articles which evidence renewed life and vigor. The recent enlargement of the magazine, the addition of new departments, the widening of its scope by the introduction of translations from prominent continental authors on topics of present interest, and the presentation of American literature, are evidences of enterprise that will be appreciated by its readers and furnish what was needed to make *The Living Age* a complete compendium of the world's best current literature.

The publishers' offer of the eight numbers of 1897 containing the opening chapters of the serial "With All Her Heart," free to all new subscribers for the year 1898, still holds good. Send \$6 to The Living Age Company, Boston, and receive the benefit of this offer. In no other way can so much reading matter of equal quality and variety be obtained.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been clear, cool, bright and altogether lovely for some days past, but it will require more of the same kind for a while longer ere the ground is dry enough for a resumption of cane planting under proper conditions. This consummation is awaited with much impatience on the plantations where little or no planting has yet been done, and, if the rain keeps off until next week, Monday will find this work in full blast throughout the parish. Under the influence of the dry spell the public roads are rapidly becoming very much improved, and it is probable some of the worst spots in these thoroughfares will be made the objects of special attention by public-spirited citizens with the means at their command for repairing the places in proper manner. The manager of one of the largest plantations in the parish is said to have his eye on Smoke Bend, and proposes to place the road leading through this settlement in the best order the character of the soil will permit. Up to a few weeks ago the Smoke Bend road was one of the best in the parish, but the building of pieces of new levee rendered the destruction of the road necessary, and under our road system, or lack of system, no adequate provision is made for its restoration. There is quite a general sentiment in favor of making the construction of roads a part and parcel of the levee system, at least in so far as requiring contractors to build public roads alongside the lines of new levee erected by them. The work can be done much more readily and cheaply by these contractors than others can do it, for the reason that the former will have all the facilities for the task on the ground, and can employ them at a very slight advance of cost over the amount required to meet the expense of building the levee. The question is one deserving the serious consideration of our lawmakers.

The February meeting of the Ascension Branch of the Sugar Planters' Association of Louisiana was held last Tuesday, with a good attendance of the membership. In the absence of Hon. Henry McCall, president, the chair was occupied by Mr. Bernard Lemann, first vice president, and among the others present were Messrs. E. H. Barton, Meyer Lemann, Col. J. E. St. Martin, Dr. W. M. McGalliard, Dr. John D. Hanson, F. B. Lemann, C. Kline, Henry C. Braud, H. L. Weil, G. A. Gondran, Paul Leche and L. E. Bentley. The minutes of the November session were read and approved, as was the report of the secretary and treasurer. On motion of Mr. Kline, the charge for the use of the billiard table was reduced from 30 to 10 cents per hour. A communication was received from the Manufacturers' Association of Kings and Queens Counties, New York, asking the adoption of resolutions favorable to the passage by Congress of the Loud postage bill; but after a brief discussion of the matter it was decided that no action be taken and that the secretary so notify the senders of the communication. The subject

of the annual dinner and ball was debated, and it seemed to be the general belief that these entertainments should both be given this spring, if nothing occurs in the meantime to render them inadvisable. It was agreed that the matter shall be taken up for special action at the March meeting. There being no further business demanding consideration, the association adjourned.

The Burnside Gun Club inaugurated the season's sport with a live and clay-bird tournament last Saturday, in which the honors of the best marksmanship were pretty evenly divided between Messrs. T. A. Devine, of Memphis, Dr. W. P. Miles, John W. Tucker and S. J. Boote, of Ascension, with Managers J. M. Breaux and S. L. Davis, of this parish, not far behind, and J. K. Tucker, of St. James, not far from the front in the procession of shooters. Assistants A. M. Barker, J. L. Saxon, Elmer Hunt, H. W. Green, Numa Dalferes, Drs. B. A. Colomb, J. T. Bringier and C. M. Davis and several others exhibited creditable skill with the gun, among the best of the marksmen being Mr. F. M. Gentry, the popular horse and mule man. Another shoot is to take place at Burnside on the 12th inst., the profits of which will be donated to the new Episcopal Chapel in process of completion at that point. The shooting managers hope to have a large quantity of cane planted by that time, in which event look out for some phenomenal scores.

No complaint has yet been heard of the condition of seed cane in

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been more favorable during the past week than during any previous week since the beginning of the year, and cane planting has been resumed. Outside of being somewhat sprouted the seed cane is reported to be good and the acreage planted will exceed last year's about 15 per cent. Several have reported very heavy rainfalls during January, one as many as twelve inches, but the register at the United States engineer's office at Plaquemine shows 6.75 inches. The minimum temperature was on January 1 22 deg. and the maximum January 11 84 deg.

Several more changes in plantation properties have taken place in this parish since last report. The Lower Eimer plantation, just above Bayou Goula in the First Ward, was sold by Mr. Balthazar Lotz to Mr. Leonard B. Lotz for \$40,000. Messrs. Harrell & Kock sold their Upper Eimer plantation, adjoining Lower Eimer on its upper side, to Mr. Oscar D. Billon, of the parish of St. James, for \$25,000, the sale of the upper half of the Star plantation from Captain Charles A. Brusle to Messrs. James M. Holloway and William A. Holloway, which was interrupted last spring by the suit of Wm. Schlater vs. C. A. Brusle for the annulment of the suit, was concluded a few days since for \$10,000. These figures are all fair prices and, considered in conjunction with numerous smaller sales, go to show that there is plenty of confidence and some money to invest in the sugar plantations of Iberville.

There are more lands under cultivation in the parish to-day than ever before.

Mr. Wilbrod Thiry, of St. Gabriel, has leased the Hundred Mile plantation from his mother, Mrs. Caroline A. Thiry, and will conduct the planting operations for his own account. Mr. Thiry is a thorough cultivator and has his field in splendid shape.

Mr. John M. Harrell, formerly of this parish but now of Beka plantation, parish of Orleans, and a pioneer in the "crystallization in movement" project, which he pronounces a good thing, was at Plaquemine Saturday and Sunday, and had a pleasant word for his many friends. Mr. Harrell is a hard worker and during the past season made eighty-seven consecutive night watches at his sugar house besides his daily work.

Mr. James M. McClure, of Plaquemine, has resigned his position as cashier of the Bank of Plaquemine, and will take charge of a large rice plantation at Beaumont, Texas. Mr. G. T. Dunlap was elected cashier to succeed Mr. McClure. Mr. C. A. Barker, Jr., advanced to the position of assistant cashier, and Mr. Andrew Gourrier, son of the late Mr. Samuel Gourrier, of York plantation, was appointed runner.

The new levee at Plaquemine was completed Sunday, and a plank wall is being erected in front of it to protect it from wave wash. Considerable complaint has been made about the materials out of which some of the new levees are being made, especially the large proportion of river sand that is going into certain sections, and some fears are entertained. The matter is well worth the attention of the levee authorities.

District Court will close this week. Last Wednesday ten criminals were sentenced to the penitentiary and several to the parish jail, the latter subject to be hired out or worked on public works, under ordinance of the police jury.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: During the past week the weather has been perfect for plantation work, which has been pushed with all speed in order to make up, if possible, for time lost in January. There was a little rain here Sunday morning, but Monday dawned clear and bright, with a full force of laborers in all the fields. Good weather has since prevailed, which, as stated above, is being taken advantage of to the utmost by the belated planters. These bright days have put the planting fraternity in a more cheerful frame of mind than they have had so far this year.

Another encouraging feature of the situation as it exists at present is that the seed cane is in good condition. A veteran planter remarked last night that a close examination of his cane, both plant and stubble, revealed the fact that it was in a perfect condition. It is generally conceded that there has not as yet been sufficient cold to injure the cane, but the fear was general that the heavy rains during the first three weeks of January would prove as injurious as severe cold. Such, however, seems not to have been the case.

One of the anomalies of cotton planting was forcibly impressed upon the writer a few days ago. In passing through a cotton field men were seen piling up and burning stalks from which last year's cotton had not been picked, in order to put in another crop of the fleecy staple.

An East Baton Rouge farmer has rented some land in this parish for the purpose of growing an oat crop. The experiment will be watched with interest.

Mr. A. W. Norman is now in charge of Smithfield plantation.

Frost and light ice have been in evidence here during the past two mornings.

All the figures are not yet available, but enough is known to warrant the assertion that the sugar output of this parish for 1897-98 exceeds that of 1896-97.

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The weather for the last few days has been trying to make up for the execrable rainy spell of the early part of January. With the advent of sunny days the business of planting has progressed rapidly, and some few early birds will finish the present week if the dry spell continues. As to the condition of the seed cane there are various reports. As a rule I believe I am safe in pronouncing it fully up to the average. That put down early in some instances badly sprouted, but if it can all be put in the ground without further delay, a fair stand will probably be obtained. The condition of the stubble is superb, perhaps too advanced for the season. It marks the row in many places, and this is particularly true of that on black land. The old planters as a rule say that February is the month that tries the stubble, meaning that a bad wet February spoils the cane. However, as we have had so much wet weather in January, perhaps the present month will treat us better, and a perfect stand may be obtained. The rise in the Lafourche has been as rapid as we have ever known. We now have fair steamboat navigation, and the prospect of bank-full water for some time. The present stage suits all interests (with the exception of the flat-boats), and is particularly encouraging to the rice men.

A larger acreage will be devoted to this cereal this year than usual. We still hear rumors of railroads. The latest news is that the Southern Pacific will certainly build as far as the Lafourche refinery and perhaps as far as Labadieville. The Quigley road is also being again agitated, so that out of the three roads we ought to be able to secure one at least. There is also an opposition steamboat line being organized, and rumor has it that the Louisiana (our passenger steamer) will also have a rival. The outlook so far for sugar is very promising. Confidence in the future of this industry is being rapidly restored, and new enterprises in this connection are heard of every day. The better prices paid for labor is a boon to the merchant, and prosperity is near at hand for the sugar section of the State at any rate. Perhaps the surest signs of this

are the increased deposits in the country banks, an increase in some cases of 50 per cent. This shows strikingly that there is ample money in the country to supply pressing needs. The recent sales of property in the sugar belt at enhanced values and the demand therefor emphasizes the fact that the sugar industry is on a surer basis than for several years.

Among recent sales we note that Mr. Leon Godchaux has added another tract of land to his Elm Hall estate, viz., the Roger property, recently acquired of Mr. Steve Roger. Mr. Roger, we understand, will remain this year, at any rate, on the place, and raise cane by the ton to be sold to Elm Hall. The price paid for this property shows the value given to land by its proximity to the large central factories. I learn that the price of land in close proximity to the Belle Alliance factory has also felt the same stimulus, and has very much increased in value.

At this season of the year when every one is busy planting cane it is singular to note the marked difference in views existing as to the amount of cane that it is best to plant. In this connection the timely appearance of Dr. Stubbs' book is a treat to managers and planters generally. His experiments should surely solve this and many other questions of practical interest to the planter. A copy should be in the house of every cane raiser in the State, as a ready reference book to be used when needed. We note with pleasure that it is to be followed by others on the same subject. The matter is simply written so as to be understood by all, a merit not so often embodied in treatises of this nature, where too often the learned mind soars above the every-day understanding of the average man. To express one's views as clearly and pointedly as is done in this little volume is an uncommon gift.

Mr. John B. Foley is moving his house to his Idlewild plantation, and it is beautifully situated in the grove of live oaks.

Mr. E. P. Munson will soon erect a handsome modern residence on Glenwood, and the new house of Mr. Honore Dugas is nearing completion.

Mr. Kessley, on Voiron, has completely renovated and greatly improved the appearance of the residence, in fact almost making a new house of it.

Mrs. Walter Guion and family have rejoined the judge. We are glad to say that Miss Guion stood the trip back splendidly and is rapidly regaining her lost strength. Her many friends will join us in the hope that the Louisiana air will completely restore her to robust health.

The presence of the steamboats in the Lafourche is like having old friends dropping in on one, and the sound of the whistles was very cheerful music to many.

MORE ANON.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: While the weather grew a shade brighter during the latter part of last week, it did not last long. Sunday morning, the 30th, brought about a decided

change in the temperature, it growing warmer, cloudy and showery, and in all respects disagreeable to the farmers, now anxious to get out and start teams to turning the soil.

On some places having good drainage, the planters were able to start their men and teams to ploughing during the 27th, 28th and 29th ultimo. The soil was really too wet to get the very best results with the plow. But the season is growing older all the while and as it does so time must be counted.

Those who were in a position to do so were out in force planting cane while the sun was shining last week. The ground was rather heavy for such work, but there are times when matters are obliged to be done, and this, it seems, is one of the peculiar seasons in which vegetation refuses to remain dormant. The constant warm rains which have been falling since the 1st of January have tended to keep the soil too warm for the season. Therefore, the germs of seeds and plants have been prematurely quickened into life and grow out to the surface in quest of air, light and sunshine. In some respects this is the case to-day with plant cane in the mats. It is forcing itself out to light and life, and it will not be surprising before the cane planting season is over with to learn of damaged seed caused from premature sprouting in the mats, unless some very decided change takes place soon in the temperature to check the rank growth now going on.

But should the weather continue warm and damp during this month as it was during last, the cane growers to save themselves will have to plant their cane regardless of the condition in which the soil may be, in self-defence against loss, and such action on their part will not be the first instance on record when cane has had to be "mudded" into the ground to get it planted and then yielded an enormous tonnage of cane to the acre.

I beg to differ a little bit with Mr. Bouche-reau's Report on the tonnage of sugar produced in Avoyelles, 1896-97. One house in Avoyelles made in 1897 1,000,000 pounds of sugar, not to take into consideration the output of three other factories at all.

Again, it should be noted that Avoyelles has been shipping a good heavy tonnage of cane during the past two years to the sugar factories situated in some of the more southern parishes, which, if added to Avoyelles' account, would raise the scale very considerably higher than reported.

However, the future is growing brighter, for not only Avoyelles but St. Landry and Rapides will soon rise to the front by steadily producing an increased tonnage of sugar grown on home soils.

Since commencing to write and before going to post, I have the pleasure to report that a change for the better has taken place in the weather. The wind changed during the night of the 30th ult. to the north, bringing with it bright and clear weather, much to the joy of the farmers and planters, who are now making haste while it is fair to stir the soil and plant cane as fast as possible for full forces of willing hands to do so.

I don't think that an idle man can be found in the country to-day. Every one, it seems, has

something to do to keep them busy. Lands are being cleared up before the plows; fencing, repairing and building; some engaged in ditching, others opening drains to facilitate the flow of water, and better fit the soil for the plowman to follow.

It does look from the start made like the agricultural classes of this part of the country were more determined than ever to grow as big crops as it may lay in their power this year.

ERIN.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: But for light local showers on Sunday the weather has been more favorable than for some time past, and the lands are ploughing as well as could be expected after the numerous showers during the month of January. Some little ploughing was accomplished on well drained soils at the end of last week, but the furrow slices were somewhat tenacious. Cane middles on the corn areas have been ploughed, and some are now selecting the sandy, best drained fields and are judiciously reploughing the land prior to planting. From year to year planters are more and more appreciating the great necessity of preparing the seed-bed with the proper tilth, not only for cane, but also corn. An instance was cited to the writer where the reploughing of the rows prior to planting resulted in an increased yield of four tons of cane per acre, an amount which certainly more than compensated for the extra time and labor.

Although the precipitations have not been excessive during the past winter, yet the lands which were flushed instead of being ploughed in rows are waxy and tenacious and can not yet be ploughed without detriment, the land still retaining too much moisture. As it is necessary to expedite field work as rapidly as possible in the spring, operations in the fall should be so conducted as to accomplish the end in view; not only that, but science has disclosed the fact that micro-organisms are much more active in preparing plant food in ridged lands than when they are left flat. The problem which confronts the cane grower in this State is the cheaper production of the raw material, with a relatively high sucrose content, which can only be solved by unremitting care in the preparation of the land, its effective drainage, after cultivation, and its intelligent treatment manurially.

Two systems must remain in vogue for years to come in the sugar belt of the State—one the gang system, and the other cane farming, whether with tenants, or, better still, by small land owners. From the present outlook the majority of the lands on the river, larger bayous and the gulf parishes, there the gang system, with tenants here and there, will prevail; but the lands lying north of the Teche and south of Red river should be cultivated by small proprietors, who can combine in a systematic manner, and become part owners in central factories within a reasonable distance of their homes.

To grow cane cheaply the grain farmer must have at his disposal, when needed, the

best improved, labor-saving implements, or he will signally fail in his efforts to make remunerative crops.

The culture of the cane grower should be intensive to decrease the annual outlay for fertilizers, by which method canes rich in sucrose can be delivered at the factories, enabling proprietors to pay full prices.

Wednesday of last week was clear and cool; Friday and Saturday cloudy; Sunday was cloudy, with strong southwest winds and dashes of rain at intervals in localities; Monday fair and cool; Tuesday a light frost and fine; and Wednesday, as the day grows older, a better promise of continued favorable weather.

TERREBONNE.

Vermillion.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been more favorable for the past week than heretofore. The first of the week, or in other words, the first of THE LOUISIANA PLANTER week, for it starts with Wednesday in Vermillion, was not so favorable, but beginning with Sunday to date we have had most beautiful, sunshiny weather—warm at first, but at the present time it is good and cold, with a little ice in evidence on all sides. If we could have just such weather as this for two or three weeks the farmers would smile away down in their boots, for then they would be through planting cane, and in fact would have all preparations for the '98 crop under full headway. Cane planting, which was begun during the last of December and 1st of January, had to be indefinitely suspended on account of the rainy spells, but it will be resumed now with renewed energy.

Your correspondent has learned since last week's writing that the damage to seed cane is not so bad as was reported. It is true that some of it is damaged, but only a stalk here and there, and it is to be hoped now that no more will spoil, and if the weather remains favorable it will not. The future prospects for the sugar industry in this parish are very flattering, in fact brighter for Vermillion than any other section in Louisiana. And the reason is just this in a nutshell—the undeveloped area for cultivating cane is larger. If you will allow us we will just give you the opinion of an old resident of Southwest Louisiana on the future prospects of Vermillion parish—he is not a native of Vermillion but of an adjoining parish, and for the past sixty years has traveled over the prairies or in other words the sugar belt of the State, and being an observant and educated gentleman, he has let but few of the beauties or future prospects of the sections in which he has traveled pass him unnoticed; he expresses himself about as follows: "I have lived in many parts of South Louisiana for the past forty years and am familiar with the entire sugar belt, and their names have been advertised to the world as Edens and banner sections; I see them as nothing as compared to the future of Vermillion. Vermillion must necessarily become the heart of the sugar region of Louisiana. The Vermillion country will support more and larger refineries than any other section of the State.

"Along the Teche there is but a narrow strip of land, near the river, that is sugar-producing land. This strip is very high and rich, but it soon falls off into the low swamp or marshy lands, while along the Vermillion river, near the stream the land is a rich, sandy loam, while back from this, for miles on either side, the land rises in a broad expanse of alluvial prairie, black and fertile, and which produces cane heavier in weight than that grown near the river. Thousands of acres of this land is now lying idle, but must soon be developed into sugar culture. The cane grown on the Vermillion lands is much heavier and richer than that grown in other parts of the sugar belt, and the land on which it is grown is easier cultivated and with much less expense to the planter to realize the same results. This alone, he says, will develop the Vermillion industry at no distant day." The territory to be developed here is something enormous. Vermillion has at least 100,000 acres of available sugar land, which, at twenty tons per acre, would yield 2,000,000 tons, with an average of 150 pounds of sugar per ton, would be 300,000,000 pounds of sugar, but we have no facilities for taking care of the cane were 5 per cent. of that amount raised.

P. C. M.

St. James.

[Special Correspondence.]

Editor Louisiana Planter: The weather since last Sunday has been as fair as can reasonably be expected, holding out encouraging prospects of a good week's record in the spring planting and general ploughing up. It is to be hoped that the excessive moisture we have been victims of will be vouchsafed to us hereafter. The energies of the planters, managers and tenants are now concentrated on spring planting, and the preparing of new lands to receive further additions to the crop of the parish. Regular spring planters may not finish for a couple of weeks, and probably a month, depending upon quantity to do, weather, etc. According to rumors the corn crop will be below the average in acreage, as there will not be much of it planted. Every planter put down sufficient seed to plant every available nook of land, and the prospects of an extraordinarily large cane crop this year are evident. In speaking of seed cane, we have noticed that some planters are not very enthusiastic about its soundness, as the ends are beginning to rot, and if left in its present state any length of time much damage may be effected. Once planted cane can survive much rough handling, but previous to that it is a tender plant. The object now of every planter seems to be to consider the "quantity" and not so much the "quality" in making a crop. Already the sugar engineer is abroad, making specifications for the season's improvements and repairs; slow planters heretofore are waking up and are coming to the front, by declaring their "intentions" of adopting this or that improvement. The kind of improvement contemplated seems to be mostly that of increasing capacity, such as larger mills, more clarifiers, and putting in more coils in small vacuum pans.

That nightmare of the right bank, Pike's Peak levee, still disturbs our peace of mind,

owing to its unfinished condition. Every effort to overcome the evil is being made on the part of the contractor. Messrs. J. Henderson and J. Vegas have come forward with their labor force, as they always do in any emergency, and are helping to do what is necessary to protect us from the creeping waters. Even when complete, our fears will not be entirely alleviated, as the dirt is yet feebly packed, and the cold and constant rains have retarded the growth of any grass whatever. The general opinion is that the levee should be fascined, but the task of doing so would be a herculean one, besides exorbitant in price.

Mr. J. Vegas, for many years employed on Richbend plantation, now fills the position of manager on Upper Elmer, of Messrs. Billou & Guidry.

Mrs. J. Markham and little daughter, of Cypremort, are guests of Oak Alley.

ST. JAMES.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: With the arrival of February a spell of fair weather has come to visit us, which is eventually a treat such as we have not enjoyed in a long time. Monday and Tuesday were exceptionally bright; a cold cutting north wind blew with a steady, regular force, whilst Wednesday morning the sun rose amidst innumerable clouds, accompanied by a damp east wind which rendered the morning of a foggy nature, and raised the temperature considerably, but at noon a reaction occurred when suddenly the wind went north, and we are now in hopes of a continuation of sunny days. All plantation occupations have been re-established, and planting is being pushed with vigor, although complaints are heard as to the wet condition of the soil.

Seed cane is reported as being very good, the damages caused by the too frequent rains we have had of late being but very slight, and the acreage will by no means suffer from this.

The river has risen considerably since last your scribe wrote; a great amount of wood passes and our busy inhabitants are taking advantage of same to make free provision of fuel. Levee work is continuing, still the contractors and workmen seem quite slow at it, as improvements can hardly be seen. But owing to the cold spell which is now reigning throughout, we are in hopes that this rapid rise will be somewhat checked.

In last week's issue a little error was done, when, speaking of the sale of the St. Rose plantation, I mentioned the approaching removal of Mr. Rolling and family to New Orleans; as instead of removing so far, we are pleased to hear that he is merely going to Pike's Peak plantation, on the right bank, where he is actually part owner.

A large store is going to be established on the St. Rose by the proprietors of the plantation, and Mr. D. Heller and family, formerly of Pike's Peak, have taken possession of their newly purchased home.

On Monday, February 7, a jury term of the District Court will begin, and we hear of many and important cases being on the docket. The

session of the constitutional convention at the same time will doubtless injure it, as the election of some of our prominent lawyers to membership in it, among whom are Sims and Lambremont, will unavoidably necessitate their presence at the convention instead.

If we must judge the pecuniary conditions of our parish by the great number of weddings which are taking place, we are prompted to think that they have greatly improved, as we have not heard in a long time of so many matrimonial bonds being signed.

Since your scribe has started writing the thermometer has fallen 3 deg., now registering 34 deg.

CONVENT.

St. Charles.

Grinding is pegging away yet, and it is no doubt monotonous to those who are working in it. All our planters have wound up with the exception of the Ashton plantation. The work has been retarded on the place by having so much windrowed cane to grind, with the inclement weather. A few of our planters were compelled to leave some cane in the field.—*Herald, January 29.*

Trade Notes.

J. P. Kemper.—Elsewhere in this issue appears the advertisement of this gentleman, who is one of our rising sugar house engineers. Besides holding the agency for a number of sugar house necessities in the mechanical line, Mr. Kemper is the patentee of a cane carrier feeder which is attracting a great deal of attention. Mr. Kemper says he had his device in operation last season on the Glencoe plantation, and after a few detail modifications had the satisfaction of seeing it a perfect success. Being asked for a short description of it he said:

"The device was designed to obviate the many great disadvantages of slinging and hoisting cane from carts or of dumping it on the yard and picking it up by hand. It is intended especially for storing and feeding cart cane.

"The cane is dumped upon a long table at right angles to the carrier. In grooves lengthwise on this table, about six feet apart, are two sprocket chains which are operated by means of a drum operated by applied power and a friction clutch at the end next to the cane carrier.

"The loads of cane are dumped one behind the other on this table and pulled onto the carrier by means of detachable wooden drays, placed behind each load, one at a time, and fastened by hooks into the links of the sprocket chains beneath. The chains being in grooves are beneath the surface of the table and are not disturbed by the carts driving over the table.

"Where a great quantity of cane is to be stored it would be necessary to put in a number of these tables, or, better still, plank the entire cane yard and have these sprocket chains at the proper distances apart to drag the loads onto the carrier without conflicting with each other.

"By means of the friction clutch which sets the chains in motion, the feed can be regulated almost to a stalk.

"I am prepared to sell these feeders this year

under a full guarantee of perfect satisfaction and greater economy of labor than any other device for the same purpose."

Farrell Foundry and Machine Company.

This well-known establishment, which has been catering to the wants of the sugar planters in various ways for many years, advertise elsewhere in this issue their filter presses, one of which can be seen at the office of the New Orleans Railway and Mill Supply Company, at 624 Camp street.

Mr. R. S. Rickey is representing them here as usual, and he expects, with apparent good reason, to double the business he has done in previous years. He is located with the New Orleans Railway and Mill Supply Company, at the above address, and is always ready to explain the apparatus he represents in the comprehensive and entertaining way which he so well understands. He tells us that there were fourteen of the Farrell presses placed in Louisiana by him last season, and there are altogether thirty-two in use in the State, all giving good satisfaction. He has some excellent letters from prominent planters attesting their high regard for the presses, and is prepared to substantiate his claims to a high place for his apparatus in the estimation of the sugar-planting fraternity. In his advertisement will be found the names of a few of the widely known people who use the Farrell presses, and they are all known as level-headed men, who know a good thing when they see it, and are careful and conservative in their purchases.

McArdle & Co.—Among the many agencies who represent large manufacturers and carry stock for the immediate wants of the sugar planters, none are better known and more highly esteemed than Messrs. McArdle & Co. Under the able supervision of Mr. P. H. McArdle this firm is making rapid strides, and will doubtless, with the experience and facilities which they possess, receive their full quota of patronage from the sugar planters and others who are in need of goods in the various lines which they represent. Their advertisement appears elsewhere in this journal, and it would be well for all to examine the same who are in need of locomotives, cane cars, link belting, etc. THE PLANTER wishes Messrs. McArdle & Co much success.

Sugar in Ohio.

TOLEDO, February 3.—A sum of \$140,000 has been subscribed to the capital stock of a beet sugar factory to be put up at this city, to be ready for business in time to handle the crop of 1898. Over \$100,000 more is promised and is in the city. This will be the first beet sugar factory in Ohio, although capitalists at Columbus experimented with beet more than sixty years ago, and failed, of course.

BURTON, February 3.—Runs of maple sap have been had in some sugar groves in this section since the cold snap the first of this week, but the prospects for an unusually favorable crop is not good, because of the very open winter. Zero has been reached but once this winter and that was over a month ago.

GEORGE U. HARN.

FOREIGN LETTERS.

Berlin.

BERLIN, January 15, 1898.

Editor Louisiana Planter: There is absolutely no use of speaking of the weather, it remaining day by day and week by week the same, and its influence is any way reduced to a very small compass, the factories still working forming only rare exceptions, and the campaign, properly so called, is in most places finished. As to its results the latest fiscal statistics have revealed the surprising fact that the yield in December was better than in the preceding months, and that the total extraction of sugar from the beet for the first five months of the season has improved, as compared with last year, whilst in view of the unfavorable weather, and the complaints about the deterioration of the beets in silos, the exact contrary was expected. The yield obtained now in the beet sugar factories amounts to 11.80 per cent., as against 11.59 per cent. at the same time last year, but at the end of November the figures were 11.53 and 11.43 per cent., respectively, from which it appears that the difference in favor of the present campaign has increased from 0.10 per cent. to 0.21 per cent. The explanation of this strange and almost puzzling circumstance is sought in the fact that the process of taking back the drainings of first products into general work was applied in more factories than last year, which causes a larger output of first runnings, whilst later on the production of second runnings is curtailed correspondingly, in which case the improvement of the yield would not mean a very marked surpassing of the estimate now admitted. In the other beet countries of Europe the meteorological conditions show also no change worth mentioning, and thus this topic for some time to come might safely drop into oblivion.

The public discussion of the bounty question has by this time assumed a somewhat heated character, both between the different countries and the parties either advocating or rejecting the system. Even among the fabricants themselves the opinions are divided, but in Germany the overwhelming majority are for abolition only when it is agreed upon or effected by all countries, for there is no doubt that if at present all nations, except one, would do away with the bounties, this one would very soon cause the others to return to the old system. The principle of "all or nothing" has frequently proved baleful to human aspirations. In this case, however, it would be a great mistake to deviate from it. Any developments as to the bounty question worth chronicling, however, have not come to pass.

The consumption of sugar in Russia is making obviously big strides in advance. A short time ago the Minister of Finance, in order to put a barrier to an exaggerated rise of prices, made use of his power to admit a part of the reserve stock for sale on the home market, but this quantity has been quickly absorbed and another liberation of stock has become necessary, which was effected the other day, 750,000 poods having been admitted to be sold in the interior

without the payment of the additional taxes to which are subject all sugars not comprised in the quantity destined for home consumption by the government. This quantity amounted originally to 31,500,000 poods (525,000 tons), but is now raised to 33,500,000 poods (558,000 tons) crystal sugar.

At the last general assembly of the large German beet sugar society it was proposed that steps should be taken to induce our military authorities to add a certain quantity of sugar to the fare of our soldiery. Now I can report that not only the executive committee of the society has complied with the wishes then announced by Dr. Hager, but that also the military administration has expressed its readiness to make an attempt to introduce sugar into the rations of the army. The moment to affect this innovation is at present favorable, inasmuch as the government proposes to furnish warm evening food to the soldiers, which requires an additional outlay of about 11,000,000 marks for the maintenance of our army, but if sugar (perhaps 50 grammes per diem) would be given into the bargain, the sum necessary may be enhanced to the extent of about 2,600,000 more. The useful effect of the measure is sought partly in the muscle-strengthening powers of sugar, partly in the soldiers becoming accustomed to sugar, so that when returning to civil life they will contribute to increase the consumption of the article. For the present the quantity required, or used up, in the barracks would not be very large, about 10,000 tons being sufficient per annum to cover the eventual demand from that quarter. The matter, however, is still under consideration in our ministry of war, and the realization of the scheme depends largely on the discovering of a practical method admitting as little as possible of abuses and fraudulent tricks. The Parliament, it may be believed, will hardly raise any serious objections.

The importance of the British sugar trade can be seen from the figures published by the board of trade at the end of 1897. There has been, in the first place, an importation of 1,557,172 tons, as against 1,609,478 tons (raw value) in 1896; so that in 1897 52,706 less than in 1896 have been imported. But, notwithstanding this decrease, in general the importation of refined has augmented to the extent of upward of 52,000 tons, also raw beet has considerably increased, but cane has, compared with last year, suffered a loss of 153,280 tons. The consumption is calculated in raw value at 1,529,942 tons, as against 1,506,152 tons (plus 23,790 tons), and the final stocks are set down at 90,029 tons, against 137,525 tons in 1896. There is, in the face of the declining importation and the small increase of consumption (the exportation remained about stationary), not much to rejoice over in those figures. The markets have continued very quiet this week, except the last few days, when a slight improvement has taken place. A more decided change of the present stagnant situation, however, may be looked for only when refiners and exporters have disposed of the large quantities purchased before Christmas, which is not yet the case—or when America, as a buyer,

appears on this side again. Prices have not changed materially, and actual 88 per cent. sugars are quoted at Magdeburg at 10.10 marks to 10.27 marks, whilst delivery January is worth at Hamburg 9.27 marks f. o. b. Refined were flat and partly a little lower.

ROBERT HENNIG.

Barbados.

The favorable weather of December enabled the planter to take his Christmas and New Year's holidays with a light heart, planting operations being well advanced; indeed, the new year not only found the fields established, but many of them forward, with the young cane plants strong and green above ground; for, with the exception of a few fields here and there kept back by the provision crop and yet to be planted, 1893 with the two inches of rain with which, in its opening hour, it blessed our island, watered the budding crop of 1899. The friendly old year departed in a shower, which the new year kindly converted into a copious rain, happy augury we hope of favorable weather as the coming seasons run their course. —*Agricultural Reporter, January 8.*

Sugar in London.

The raw market has been outwardly dull, but prices have been fairly maintained, more especially in the speculative market, and holders of actual sugar show no disposition to sell except at previous rates. With the publication of most of the European stocks on January 1, the visible supplies are considerably increased, but it is noteworthy that the production of Austria-Hungary in December last was much smaller than in the previous year, and that the European stocks at the present time show a large deficit, which is not likely to be made up at this advanced period of the sugar campaign. Indeed, the long period of mild and damp weather must have exercised a very detrimental effect on the stored beet roots. The American markets have been less active, but values are maintained, stocks still steadily declining, notwithstanding that the weight of sugar afloat to America continues heavy, while the weekly receipts of the new Cuban sugar are now becoming important, being at the present time much larger than those of last year, though it is still suggested that the total production will not much exceed that of 1896-97. The value of other cane sugar, both low brown refining and grocery crystallized, is maintained, though the demand for the latter has been less active than of late. The stock of this sugar, however, is not large, and there were no imports of it to London during last week, the total for this year remaining 1496 tons, against 4167 tons in 1897.—*Produce Markets Review, January 15.*

Timothy has proved to be less digestible by horses than by ruminants. (Animals that chew the cud.)

Making a "mixed feed" of the grain and long forage is the best manner of feeding horses.

It is impossible to maintain horses on a grain ration alone; they must have a long forage.

Norfolk, Nebraska.

The beet contracts of the Norfolk Beet Sugar Company are being changed in a manner which will give a material advance in price paid farmers for the crop of 1898. This has been done voluntarily by the company, and offers the farmer a premium for efforts to do good work in his fields and produce high grade beets. The contracts as previously prepared provided for the payment of beets on the basis of \$4 a ton for 12.80 beets and 14.78 beets and those testing more, with a reduction of 25 cents a ton for each drop of 1 per cent. sugar or purity. The change now being made in the contracts provides that beets that shall contain not less than 12 per cent. sugar and up to and including 14.4 per cent. sugar to the weight of the beet, with a purity coefficient of not less than 78, shall be paid for at the rate of \$4 a ton. The sum of \$4.25 per ton will be paid for all beets containing not less than 14.5 per cent. sugar and up to and including 15.4 per cent. sugar, with a purity coefficient of not less than 78, and an additional 25 cents per ton will be paid for each and every per cent. of sugar that said beets contain above 15.4 per cent., with a purity coefficient of not less than 78—that is to say, for beets containing from 15.5 to 16.4 per cent. sugar, \$4.50 per ton; for beets containing from 16.5 to 17.4 per cent., \$4.75 per ton, and in like manner for each and every additional per cent. of sugar.

Should any beets grown under this contract fail to come up to the above standard for which \$4 per ton, or a higher price as above specified, is to be paid, they will then be paid for at the following schedule of prices (it being distinctly understood that such low grade beets shall not be delivered to the factory until after the factory shall have worked up all beets that reach the above required standards, unless otherwise directed by the company): For all beets containing not less than 11 per cent. sugar and a purity coefficient of not less than 78, \$3.50 per ton; 10 per cent. sugar and a purity coefficient of not less than 78, \$3 per ton. Should any of the beets grown under this contract contain a purity coefficient of less than 78, then a reduction of 15 cents per ton will be made from the above prices for each and every degree or fraction thereof of purity below 78. However, no beets will be received at the factory containing less than 10 per cent. sugar and a purity coefficient of 73.

This advance in prices must necessarily be gratifying to beet growers, and coming, as it does, as a voluntary raise on the part of the company, should be doubly appreciated by the farmers. Most beet growers made a good profit from their crop last season at the old prices, but had the scale which is to be used in 1898 been operative, then they would have received much more for their labor than they did, as many of the beets tested high enough to draw \$4.25 and \$4.50 under this rating, while some would have brought as high as \$5. With the forthcoming season as favorable as last, there is no reason why as good beets can not be raised, and with the added incentive of a better price, farmers will put forth every effort to produce high grade beets.—*News*, January 27.

Red Rice.

[A paper by PROF. W. B. DODSON, Botanist Louisiana State University, read before the Louisiana State Agricultural Society, at Crowley, La., January 27, 1898.]

Mr. President, Members of the Louisiana Agricultural Society, Ladies and Gentlemen:

As my paper comes last on the programme for this evening's session, I will try to cut it to a short pattern, and avoid overtaxing your patience. The progress and development of the rice industry has already been ably treated by Mr. Crippen. It was the pleasure of the committee on programme that I should discuss one of the obstacles in the way of the rice planter, namely, his unwilling cultivation of red rice.

I suppose it is better to say very little about this plant by way of introduction, as most of you are probably better acquainted with it than you would like to be, and have more of it than you would like to keep. Red rice seems to appear in small quantities, at first, in new rice land, and increase from year to year till its abundance becomes a menace to the planter.

The cause of the development of the red grain seems to have escaped careful investigation, or at least the writer has been unable to find anything published upon the subject. The writer has been at work for nearly three years gathering data and verifying observations upon this source of annoyance to the Louisiana rice planters. What is given in the following pages will be largely taken from a report of this work, which is now in press, and will soon be available for distribution.

For this work seeds were collected from various places, several packages having been received from the Crowley Rice Mills, of Crowley, La.

Red rice is a popular name given to the rice plant that produces seeds with red or pink kernel or covering. In some cases the grain is colored a dark red through its entire substance, while in other instances almost any shade of lighter tint between the red and the white may be met with. Sometimes the color is only in the seed coat and is removed by the mill. When the seeds remain red or have streaks apparent as evidence of the small portions of the seed coat remaining after going through the mill, the product is less salable than the clean white seed.

In the rice fields, after the stems are well headed, one can readily distinguish at a distance of several paces the plants that will produce the red seeds. I have not seen a rice planter that could not readily pick out the red rice, though he may not be able to tell exactly what causes the difference in appearance. Upon comparing a head of red and a head of white rice, it will be seen that the red is inclined to be longer, with the grains further apart on the branches of the head. The branches that support the grains of the red rice are generally very crooked, while the branches of the white are mostly straight, or at least much straighter than those of the red. The seeds are shorter and smaller than those of the white, and the drooping of the panicle is different. All these things go together to make an apparent difference in the appearance of the head that every one will notice.

These differences, with others that will be noted further on, seem ample to the judgment of the writer to justify the conclusion that the red rice is a different species from that of the white. If this conclusion is correct, then the seeds of white rice will not produce red ones. This conclusion is directly at variance with the belief of most rice planters, who attribute the red seed to the effect of winter exposure of white seed. The belief seems to be almost universal in this State that when white rice seeds remain on the ground all winter and grow the following spring, the seeds from that plant will be red. Many planters account for all the red rice in this way. They also believe that when the grain is once developed red it will continue to produce red seeds in each succeeding generation. Others think an injury to the young plant will cause the seeds to develop red. Still others say that the tramping of the ground will favor the development of red rice, and give as an evidence of it that there is more red rice in the corners of the squares and along the ditches than there is in the middle of the squares. It does frequently occur that red rice is more abundant near the ditches than in the middle of the plots, but this may in all probability be accounted for by the fact that the conditions near the ditch are more favorable for the development of a second crop after the planter has ceased to give it any attention.

The red seeds that may, perchance, be with this second crop will be preserved over for another increased crop the following year, while most of the white seeds may perish. In this way the amount of red rice increases from year to year.

To test the validity of the planters' theory for the origin of red rice, some experiments were made in

PLANTING WHITE RICE IN THE FALL OF THE YEAR.

A quantity of white rice was carefully selected, the husk of each grain being cut enough to disclose the color of the grain inside. This was done to make sure that no red grain should be planted. The seeds were planted in the fall of the year in the plots carefully cared for during the winter. Plantings were made that were well covered with earth, some that were barely covered, and some that were simply covered with straw. The following spring some plants came from these seeds that had remained on or in the soil all winter, but all of them bore white grains. Seeds that were placed in a cotton sack and hung in a tree in the garden all winter and planted the latter part of February produced white seeds. Seeds that were buried in bulk in the fall also produced white seeds. There was no evidence whatever obtained that the seeds would become red from the exposure of winter.

Some experiments were also made in planting red rice. The red seeds invariably produced plants that bore red seeds. From this planting a greater per cent. of the seeds survived the winter than was the case with the white, indicating that the red rice is a hardier form than the white. If the red rice is a variation from the white, we would expect to find occasional if not frequent reversion to the

original stock, but this does not seem to be the case.

Some experiments were made to see to what extent the red rice would cross with the white, and *vice versa*. Without going into details of the work, suffice it to say that crossing takes place both ways. Frequently when the flower of the white rice is fertilized by the pollen from the red, the resulting grain is white on the interior with a brown or red seed coat. When the red rice flower is fertilized by the pollen from the white, the result is generally a seed of lighter tint than would have been produced otherwise. These seeds were collected and planted to see to what extent they would revert to the parent forms. The results indicated that more of them would revert to the red parent form than to the white, thus indicating the greater strength of the red rice. Therefore from the crossing of the two the red rice would increase faster than the white.

FIELD OBSERVATIONS.

The rice fields have been studied during the different seasons of the year, and from these studies some of the most interesting data has been obtained, especially from the study of the conditions that obtain from the general harvest to the spring ploughing and planting. The popular idea that the red rice comes up very early in the spring is in accordance with the facts observed, and the cultivation just before sowing is productive of some good. But there are still grains of red rice in the ground that have not germinated, and some will not come up till quite late in the spring, after the white rice is rapidly growing. This is not only shown by direct experiment in tagging bunches of rice, but by the fact that one can go into the field almost at any period from the harvest to frost and find plants that are just maturing their first seed. It is to be noted that reference is made only to the stems from the original stooling, and the expression is not to be confounded with the second crop of seed from suckers or branches of the stems after the tops have been cut off.

It is asserted by some planters that the seeds can remain in the soil for one or more years and then grow; that it requires more than one year to exterminate the red rice by cultivation. This subject has not been satisfactorily demonstrated, however, and it is possible they are mistaken. Notwithstanding their earnest and honest protest that no plants were allowed to seed, it is possible that some plants matured seed that escaped their observation. We have not been able to keep any seeds all summer in a moist soil. They either germinate or decay when the warm weather has endured for a few months. But this is not the most important question, as we know it can soon be exterminated from a field by thorough cultivation. The most important question is to prevent re-seeding. After the crop is harvested, and there is generally but one harvest a year, the stems that are cut often send out suckers or branches from the lower nodes, many of which will mature seeds before winter. This mode of reproduction takes place with the red rice as well as the white, but not to a greater extent, so there would be no greater proportional increase in the number of seeds, but as the winter ap-

proaches a remarkable difference in the provision for the

WINTER PRESERVATION OF SEEDS

is exhibited. From long cultivation the white rice has largely lost its power of self-preservation, and a little warm weather, after the seed is matured, will cause a large per cent. of them to germinate if sufficient moisture is available. If they are on the ground, the fall rains with the warm days that generally come in November and the early part of December, cause the seeds to germinate, and then they are killed by the winter's cold.

On the other hand, the red rice is dependent upon self-preservation for the continuation of its species, and under the same conditions as above stated hardly a grain can be found that shows any evidence that it has started to germinate. It is a law of nature that when a plant develops some character that makes it better suited to its surroundings, that character is apt to be maintained and developed in the offspring of that plant, but if the character is of no service to the plant, it is likely to be lost. Again, if a character is once acquired, and the surroundings become changed so that that character is not brought into service for many generations, the character is apt to be lost. As the white rice is carefully harvested and stored in a dry place over winter, it would have a tendency to lose the power that it once had, of resisting the exposure of winter, while the red rice would be in its normal condition of remaining over winter without protection.

In the following spring, of the seeds that had remained on the field, a large per cent. of the red rice would grow and a small per cent. of the white rice would develop, and it is not hard to understand why the idea should become prevalent that all the seeds that develop were of the red variety, or that the white seeds had developed plants that bore red seeds.

But the red rice seeds are not alone dependent upon their power to resist premature germination or decay, but a more remarkable character is exhibited in preventing the seeds from being subjected to the moisture of the soil too soon. As will presently be explained, the red seeds are more apt than the white seeds to be preserved in a dry condition, and this character as much as any other will account for the greater increase in the number of seeds.

The white stems generally decay at the nodes in the late fall or early winter, and the upper part of the stem becomes separated from the lower, and the heads of seeds fall prostrate to the ground. The stems of the red rice do not decay so readily at the nodes, but as the straw becomes over-ripe it weakens just above the first node below the head, or sometimes in the second internode the head falls over and remains in a suspended position, possibly with only a few of the grains in actual contact with the ground. The head remains in this position, but many of the seeds become shattered off by the rain, by birds and by the wind, but many are preserved in this way in a dry state till all danger of fall germination is

averted, even had they as strong a tendency to do so as the white seeds.

In going over the fields in winter it is not a difficult matter to find the red rice owing to this tendency of the heads to remain suspended and attached, rendering them more conspicuous. When these facts are taken into consideration, it is not difficult to understand why a large amount of red rice should be carried over winter in condition to grow the following spring and the consequent rapid increase each succeeding year.

Again, some of the seeds that have not begun to grow at the spring ploughing would be covered to a considerable depth, and of these many may fail to grow, but some of them would slowly work their tiny stems to the top of the ground and it is probable that the late plants may be accounted for in this way.

In visiting the fields from time to time after the harvest, one can find red rice in all stages of development. Most rice planters will state that the red rice matures a little in advance of the general crop of white rice. This may be true for some of the heads, but there are others that mature later, having escaped the reaper's blade because of their backwardness in development. These late plants will carry most of their seeds over winter and increase the amount of their stock the following year.

REMEDY RECOMMENDED.

The following suggestions are made as possible means of reducing the amount of red rice and of preventing its recurrence. Two things are to be accomplished: preventing red seeds from maturing in the field and preventing them from occurring in the seeds sown. Possibly the most important question is to prevent a second crop of seeds from maturing after the general harvest. To this end it would possibly be a good plan to drain the lands as soon as possible after the harvest and plough the stubble under. If it is then too late to sow cow peas it may be sown a little later in some winter-growing crop, if the ditches are kept open and the land well drained. Some of the vetches, crimson clover, rape or anything that will give a good growth during the late fall and winter. This crop may be pastured when the land is dry enough not to be injured, or the crop may be harvested and fed green, or it may be ploughed under the following spring. When this can not be done good may be accomplished by drying the land and placing cattle and hogs on it to destroy the grain that remains on the stems or shattered on the ground. Hogs will pick up a great deal of the shattered rice. However, I do not know of any one who grows rice and at the same time raises many hogs. Burning the stubble, a custom quite extensively practised, will possibly destroy a good deal of red rice. Ploughing in the early spring and cultivation just before sowing may destroy many red rice plants.

If the land has once been entirely cleaned from the red rice by the cultivation of cane, corn or cotton, and absolutely clean seeds are sown each year, no further difficulty should be experienced.

Careful attention should be given to raising rice seed for planting. If the seeds are purchased a guarantee should be demanded that the seeds are free from red rice.

One can select a small quantity of seed from the field that he knows to be pure, plant these on a piece of ground that he knows is absolutely free from red rice and where no seeds can wash into it, and make this a beginning of a special crop for seed. Every year afterward he could sow a plot of land sufficiently large to furnish seed, and devote special attention to keeping it clean.

FEBRUARY 5.

WEEKLY MARKET REPORT.

1898.

SUGAR.	January 29.	January 31.	February 1.	February 2.	February 3.	February 4.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Strict Prime	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	
Prime	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	
Fully Fair	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	
Good Fair	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	Quiet
Fair	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	
Good Common	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	
Common	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	2 3/4 @ 3	
Inferior	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	
Centrifugal.								
Plant'n Granulated	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice White	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	
Off White	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	
Grey White	3 3/4 @ 4 1/2	3 3/4 @ 4 1/2	3 3/4 @ 4 1/2	3 3/4 @ 4 1/2	3 3/4 @ 4 1/2	3 3/4 @ 4 1/2	3 3/4 @ 4 1/2	Very Strong.
Choice Yellow	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	
Prime Yellow	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	
Good Yellow	3 1/4 @ 3 1/2	3 1/4 @ 3 1/2	3 1/4 @ 3 1/2	3 1/4 @ 3 1/2	3 1/4 @ 3 1/2	3 1/4 @ 3 1/2	3 1/4 @ 3 1/2	
Seconds	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	
MOLASSES.								
Open Kettle.								
Fancy	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	
Choice	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	
Strict Prime	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	
Good Prime	— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	
Prime	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	Strong.
Good Fair	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	
Fair	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	
Good Common	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	
Common	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	
Inferior	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	
Centrifugal.								
Fancy	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	
Strict Prime	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	
Good Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	
Prime	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	
Good Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	Strong.
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
SYRUP.	18 @ 22	18 @ 22	18 @ 22	— @ —	— @ —	— @ —	15 @ 16	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	8.98 @ —	Firm.
Standard A.	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	8.86 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
London:								
Java, No. 15 D. S.	10s. 7 1/2 d.	10s. 7 1/2 d.	10s. 7 1/2 d.	10s. 7 1/2 d.	10s. 7 1/2 d.	10s. 7 1/2 d.	11s. 0 d.	Quiet.
A. & G. Beet	9s. 1 1/2 d.	9s. 1 1/2 d.	9s. 1 1/2 d.	9s. 0 3/4 d.	9s. 0 d.	9s. 1 1/2 d.	9s. 0 d.	Firmer.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 4.40	
Powdered	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 4.40	
Standard Granula'd	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 3.97	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Strong.
Rosetta Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ 3.85	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Jan. 26	Tons	209,125
At four ports of Great Britain to	Jan. 22	"	108,000
At Havana and Matanzas to	Jan. 26	"	88,500

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING FEB. 4, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	612	14,280	1,536
Sold	612	49,859	1,536

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO FEB. 4, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	17,863	1,169,052	165,382
Sold	17,863	1,019,174	165,382
Received same time last year	26,068	1,087,845	189,933

FEBRUARY 5.

WEEKLY MARKET REPORT.

1898.

RICE.	Jan. 29.	Jan. 31.	Feb. 1.	Feb. 2.	Feb. 3.	Feb. 4.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 25	2 00@4 25	Strong and Active.
CLEAN, Fancy.....	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@6	
Choice.....	5 @5 1/2	5 @5 1/2	5 @5 1/2	5 @5 1/2	5 @5 1/2	5 @5 1/2	5 @5 1/2	
Prime.....	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@5	
Good.....	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	
Fair.....	4 @4 1/4	4 @4 1/4	4 @4 1/4	4 @4 1/4	4 @4 1/4	4 @4 1/4	4 @4 1/4	Strong and Active.
Ordinary.....	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@3 1/2	
Common.....	3 1/4 @3 1/4	3 1/4 @3 1/4	3 1/4 @3 1/4	3 1/4 @3 1/4	3 1/4 @3 1/4	3 1/4 @3 1/4	— @—	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....	2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	— @—	2 @2 1/2	
BRAN, $\frac{1}{2}$ ton.....	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 50	9 50@10 00	9 00@10 00	
POLISH, $\frac{1}{2}$ ton.....	15 00@—	15 00@—	15 00@—	15 00@—	15 00@—	14 00@15 00	16 00@17 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING FEB. 4. 1898

	SACKS ROUGH.	BLS. CLEAN.
Received.....	8,201	6
Sold.....	8,884	3,218

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO FEB.
4, 1898 COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	898,026	8,047
Last year.....	366,207	4,821

Sugar.

The market shows no especial features. The receipts are comparatively light, and sales are making to some extent from the accumulated stock.

Molasses.

Sound molasses is firm, fermenting not so much so; centrifugal molasses is in good demand, at the low level of values established.

Rice.

Rough and clean are both steady, with no change of moment. Receipts and sales are about equal, and the market without any especial feature.

The New York Rice Market.

The market at this point is unusually active; quite nine-tenths of the demand for the imported sorts. As previously noted, high grade Java is most largely called for and next in order comes the Bengal or Patna, which is attracting more attention than for several years, and with lower forward prices considerable option business is being transacted for February delivery. The special terms prescribed for deliveries are "to be of new crop; equal in grade to (choice) standard 1897." Japan is still in the race, but lags far behind other sorts, as prices thereon are relatively dearer, and little or no promise of any falling away during the current year. Advices from along the Atlantic coast note improved demand at easier prices. In New Orleans and throughout the Southwest there is fair activity in ordinary to fair grades; extreme dullness on good to prime. Cables from abroad note generally active conditions with markets firm; arriving cargoes disappointing, small per cent. when milled, turning out desirable in grain and color.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 43,665 barrels; sales 42,285 barrels. Improved

demand at slightly modified values. Best selections promptly taken up.

Talmage, New Orleans, telegraphs Louisiana crop movement to date: Receipts, rough (inclusive of amount carried over) 442,615 sacks; last year, 520,980 sacks. Sales, cleaned (estimated) 73,250 barrels; last year 86,550 barrels. Good inquiry on low to fair grades; light call on higher sorts; market firm.

Lehi, Utah.

The directors of the sugar company, in their meeting on Tuesday, declared a dividend of 5 per cent., to be paid in February.

Manager T. W. Cutler, wife and daughter Edith left here on Wednesday evening over the D. & R. G. for Denver. Mr. Cutler's trip is in the interest of the sugar factory.

Articles of incorporation have been filed in the office of County Clerk Dunbar by the Mt. Nebo Beet Sugar and Land Company. The objects of the company are to appropriate, divert, impound, use, buy, sell and lease water and water rights; to conduct water upon lands for the reclamation and irrigation thereof; to deal in land; to construct and maintain reservoirs, dams and canals; to build and operate water, electrical and pneumatic power plants and distribution lines; to erect and operate plants for the manufacture of sugar from sugar beets, and the sale of by-products resulting therefrom, and generally to do all thereto pertaining. The capital stock is placed at \$1,000,000, and the officers are: W. H. Llewellyn, of New York, president; Dr. T. B. Beatty, vice president; W. S. McCornick, treasurer; Gill S. Payton, secretary; and these, with T. A. Simons, of Columbus, O.; Gov. H. M. Wells and Judge John A. Street, constitute the board of directors.—*Banner, January 25.*

Watsonville, California.

Frank Tuttle and Jos. Albright are farming a tract of beet land near Spreckels.

Contractors are boring wells at Spreckels. Their contracts call for forty-two wells. Water is being found in good supply at from 120 to 160 feet.

The regular crew of workmen started to work at the factory Monday morning. They

have a lot of work ahead preparing for the next campaign.

Claus Spreckels visited Gilroy last week and gave the Soap Lake section of Henry Miller's ranch careful inspection. He was favorably impressed with the examination. Six boxes of soil were sent to San Francisco for test, and if reports prove favorable quite a section of that district may be added to Mr. Spreckels' landed interests. The beet showing made by that district last year was most satisfactory.

The city dailies announce that an English company has secured 150,000 acres for beets in Colusa, Tehama and other northern counties, and that the land is to be planted to beets this spring. The company is to have three beet factories. As the factories are on paper, and not a lick of work done even on foundations, there is no probability that one acre of the 150,000 will be planted this year, or perhaps any other year, by this "English company." This proposition has not yet taken such form as to be entitled to any fair consideration from press or public. It has the appearance of a share-selling proposition.

It has been widely published that the Crockett factory was to pay \$4.50 per ton for beets—and so it will for beets averaging 17 per cent. of saccharine. Recently an agent of the factory visited Suisun and sought contracts. A meeting of farmers was held, and from the Suisun *Republican* we take the following extract, which shows that the Crockett contract is not such a good thing as it has been represented to be:

"Mr. Raef explained fully the liberal terms which the company would extend to encourage farmers to plant sugar beets. For beets testing 15 per cent. of sugar, \$1 per ton net would be paid; and for every full degree above 15 per cent., 25 cents per ton additional; that is, for 16 per cent. sugar, \$4.25 per ton; 17 per cent., \$4.50; 18 per cent., \$4.75; and 19 per cent., \$5. For every full degree below 15 per cent., 25 cents per ton less; that is, for 14 per cent. sugar, \$3.75 per ton; 13 per cent., \$3.50; and 12 per cent. \$3.25. Beets testing less than 10 per cent. would not be accepted. Or he would contract for beets at \$3.50 per ton irrespective of the per cent. of sugar they contained, and would accept them of any size. These prices are net for beets delivered at the nearest railroad station or boat landing, the company paying the freight to the factory." —*Pajaronian, January 20.*

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; the best of references. Address **EXPERT**, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address **F. SINTES**, 2439 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address **WM. BERGER**, 1815 St. Antoine street. 2-5-98

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "**CRYSTALS**," care **PLANTER**. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address **WALTER DAILY**, 2630 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT ENGINEER; can furnish good references; six years' experience. Address **G. HENNINGSEN**, 518 Louisiana street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address **JOS. J. LANDRY**, Convent, La. 2-3-98

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address **J. S. COLLINS**; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address **JOS. SERRANO**, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address **JOHNSON**, 5535 Magazine street, New Orleans, La. 1-24-98

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address **GOTTLIEB KOELLE**, 1938 St. Louis street, city. 1-21-98

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address **U. WEBER**, Central, La. 1-20-98

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. **MCCRACKEN BROS.**, Eola La. 1-20-98

WANTED—POSITION AS STORE OR BOOK- keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address **MAX**, P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address **R. J. W.**, 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address **A.**, care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR AS- sistant engineer; has had fourteen years' experience and can furnish first-class references. Address **F. O. W.**, 844 Baronne street, city. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address **H. L.**, 618 St. Louis street. 1-18-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. **GEO. H. DOUGLASS**, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTA- tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address **BOX 73**, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address **A**, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address **ENGINEER 2020**, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address **P. O. BOX 422**, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address **P. S.**, 130 N. Franklin street, city. 1-13-98

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address **W. C. B.**, 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address **A. D. LACY**, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address **COMPETENT**, Box 649, New Orleans. 12-21-97

WANTED—POSITION AS ASSISTANT MAN- ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "**OVERSEER**," care of **A. Koehritz**, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address **E. O. W.**, Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN- Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address **A. B.**, 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address **C. LAURENT**, Whitecastle, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY SO- ber young man wants position as manager of small store on plantation, on salary or commission; gilt-edge reference as to ability and character. Address **B. B.**, 1925 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address **W. T.**, care Daily Journal, Plaquemine, La. 12-23-97

WANTED—POSITION AS CLERK IN A COUN- try or plantation store; not afraid of work. Address **CLERK**, Postoffice Box 69, New Orleans, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt edge references. Address **B. B.**, 1925 Bayou Road, New Orleans. 12-17-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address **R. V. H.**, 129 Decatur street, New Orleans. 12-16-97

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898, at living salary. Address **BOB**, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and Rapides parishes and some New Orleans merchants. Address **SMITH**, care this office. 12-16-97

WANTED—A FIRST-CLASS PAINTER, AC- customed to country and plantation work, would like to obtain work either by the day or contract. Address **BRUNO**, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address **E. C. MARSHALL**, Cheneyville, La. 12-7-97

WANTED—By a young lady of several years' ex- perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address **X Y Z**, care **PLANTER**. 12-3-97

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address **B**, care of **The Chief**, Donaldsonville, La. 12-3-97

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address **J. E. W. DAVIS**, McCall, La. 12-4-97

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address **HUSTLER**, 1100 Dante street, New Orleans, La. 12-8-97

WANTED—A YOUNG FRENCHMAN, 24 years of age, desires a position in a sugar house or mechanical construction shops. Has had experience as mechanic in France and in the most important sugar houses in Cuba. Address **M. N.**, this office. 10-22-97

WANTED—A POSITION ON A PLANTATION as centrifugal man, by a first-class sugar drier. Address **H. A. WHALEY**, care of **Wm. Johnson**, 7000 Magazine street, New Orleans. 9-28-97

WANTED—HOSTLER FOR MEDWAY PLAN- tation, Bayou Sale, St. Mary parish. Apply with reference to **D. J. KER**, North Bend Plantation, Foster P. O., La. 1-3-98

WANTED—A POSITION; A HANDY MAN ON a plantation; can furnish recommendation. Address **WM. J. TONGLET**, 413 Royal street, New Orleans, La. 11-8-97

WANTED—A POSITION AS SUGAR WEIGHER or clerk or fireman; can fill any with competency. Address **A. J. CASTIN**, 1529 Mandeville street, city. 10-20-97

WANTED—YOUNG MAN OF 26, SOBER AND industrious, wants a position as assistant sugar boiler or chemist of some sugar factory or estate in Cuba, Hawaii or Mexico; have had fourteen years of practical experience in manufacture of sugar. Address **SUGAR**, Waggaman P. O., Jefferson Parish, La. 11-7-97

WANTED—BY A RELIABLE MAN OF EXPE- rience, a position as sugar maker; well up in the management of central factories. Address **SUGAR MAKER**, No. 1716 Baronne street, New Orleans. 10-14-97

WANTED—A POSITION AS SUGAR DRIER by a competent man, who can furnish good references. Address **ALPHONSE CARRILLOUX**, Detention Camp, Waggaman, La. 10-14-97

WANTED—A POSITION AS A SUGAR MAKER; willing to do his own polarization; has had eighteen years' experience; can furnish reference. Address **ALFRED ROUSSEAU**, this office. 11-4-97

WANTED—A POSITION AS SUGAR DRIER; has had eighteen years' experience; can furnish good reference. Address **M. MONTEGUDO**, 437 Enghien street, city. 30-10-97

WANTED—A POSITION AS CARPENTER AND millwright; understand putting up shafting and setting up machinery; twenty years' experience. Address **GEORGE HINMAN**, Franklin and Josephine streets, New Orleans, La. 11-1-97

WANTED—BY PARTY OF SEVERAL YEARS' experience in sugar manufacture and refining, a position in Louisiana or Mexico; have superintended work in both refineries and factories; can give testimonials from all former employers. Address **H. S. R.**, Box 1356, New Orleans, La. 11-9-97

WANTED—TWO COMPETENT DOUBLE effect men. Apply 218 Canal street, city. 10-20-97

WANTED—POSITION AS STENOGRAPHER and typewriter, by a competent young lady; excellent references. Address **STENOGRAPHER**, care **M. R. Powers**, 704 Common street, New Orleans. 11-6-97

WANTED—BEET SUGAR ENGINEER, HAVING had large practice in designing beet sugar houses, and with experience in erecting and running, would like to connect with some new company or manufacturer of sugar machinery; best of references and satisfaction assured. Address **SUITABLE**, care **LOUISIANA PLANTER**. 11-2-97

WANTED—A COMPETENT AND EXPERI- enced machinist and sugar plantation engineer wishes to [engage by the year with good people at a small salary; references good; habits strictly sober; time to begin January 1, 1898, or to suit agreement. Address **P. H. E.**, Engineer, 734 Dublin street, Carrollton, La. 11-7-97

WANTED—A MAN WITH PERFECT AC- quaintance with the Spanish language, both in speaking and writing, and some knowledge in book-keeping, to take responsible office position on sugar estate in Mexico; must have unexceptional references and be willing to begin on a small salary; a good opportunity and first-class position to satisfactory person. Address, with age, nationality, and other details, **B. F. JOHNSTON**, 825 Warren avenue, Chicago, Ill. 11-10-97

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

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No. 7.

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AND

SUGAR MANUFACTURER,

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Texas Sugar Planters' Association.*

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5 inch.....	23 50	58 75	88 15	117 50
6 inch.....	28 00	70 00	105 00	140 00
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The Reciprocity Treaties.

Through the well-informed Washing-
ton correspondent of the New York
Journal of Commerce, we learn that the
matter of reciprocity treaties is being
earnestly prosecuted by those interested.
It seems that the German ambassador
has had several interviews with Minister
Kasson, the special representative of
the United States, in the matter of re-
ciprocity, but no formal understanding
has yet been had.

In a like manner the negotiations with
France have been delayed somewhat,
although the French consul general at
New York has been in Washington sev-
eral times to aid in the consideration of
the subject matter. Germany and Aus-
tria seem to be very willing to carry on
these negotiations, but of course the
final adjustment will be largely depend-
ent upon their willingness to abandon
their present bounty system. Nego-
tiations have been going on with Spain
in regard to Cuba, but these are largely
dependent upon the pacification of the
island. It is understood that the present
ministry have not withdrawn the proposi-
tions that were made by the last min-
istry in regard to giving Cuba the con-
trol and initiative in her own tariff,
reserving, however, certain rights to the
home government.

It is found that the foreign banking
houses and transportation companies res-
ident in South America and connected
with Europe are much opposed to the pro-
posed reciprocity treaties with the
United States, fearing as they do an in-
flux of American goods and American
business that would interfere with their
own prosperity.

A notable feature in this whole mat-
ter is that the proposed reciprocity
treaties are with sugar producing coun-
tries, and sugar seems to be the only
article with which our government is
offering to secure reciprocal relations.
No proposition is made to introduce
English, French or German cottons,

woolens or silks free of duty, or at a re-
duced duty, for the purpose of obtaining
facilities for the increased exports of
our own steel rails, or pig iron. Sugar
is the one victim that is to be sacrificed
for the good of the common country.
We have been congratulating ourselves
upon the relief that the Dingley bill has
given us as compared with the crushing
effects of the Wilson bill that so nearly
annihilated our industry in 1894-95. If
the reciprocity feature of the Dingley bill
goes into effect there will be a diminu-
tion in our sugar duties of 30 per cent.,
equal to a half cent per pound, and it
becomes every friend of the American
sugar industry to resist as far as possi-
ble the making of any of these so-called
reciprocity treaties.

A Pure Food Congress.

A call has been made for a national
pure food and drug congress to meet in
Washington, D. C., at the National
Hotel, Wednesday, March 2, 1898. The
committee calling this congress is com-
posed of the leading representatives of
the various business interests entitled to
representation and includes a number of
gentlemen prominent in the District of
Columbia, among whom we note the
name of Hon. Beriah Wilkins, the
editor of the *Washington Post*. The
governors of each State and territory
are requested to appoint ten delegates,
distributed as follows: Agriculturists,
four; pharmacists, two; wholesale
grocers, one; retail grocers, one; food
manufacturers, one; proprietary manu-
facturers, one. The National Department
Agriculture is requested to participate
through the Secretary of Agriculture,
with five delegates to be appointed by
him. The invitation goes also to the
Internal Revenue Department, to the
various boards of health and trade and
of commerce of the leading cities of the
Union, and the various agricultural
organizations of the various States; to
the scientists and medical associations,

trade organizations, etc. Hotel rates have been secured at \$2 per day at the National and \$2.50 at the Metropolitan, and all communications are requested to be addressed to the secretary, Parlor 11, National Hotel, Washington, D. C. Mr. Alex. J. Wedderburn is the secretary of the committee.

The vast amount of adulteration now current in this country, and especially the use of glucose for adulterating cane syrups and molasses, of course, concerns us very largely in Louisiana. If these adulterants were sold for what they truly are, there could then be no charge of misrepresentation against those who effect such sales. We all know, however, that the use of the adulterants is concealed as far as possible, and only becomes known to those who are experts in the various businesses in which the adulterants are used.

Very severe laws for the purpose of maintaining the purity of food stuffs have prevailed in England for many years, and it is certainly time that some action should be taken in the United States in the same direction. As State laws are ineffective, it becomes necessary to have national laws controlling the matter, if we are to hope for any relief in this direction.

The Beet Sugar Problem in Colorado.

Prof. W. W. Cooke, of the State Agricultural College, Fort Adams, Colorado, in a recent article in the *Irrigation Review*, discusses the above subject. The professor says that considerable interest in this industry is now manifesting itself in Colorado, and there seems little doubt that Colorado can raise sugar beets successfully, producing her own sugars instead of sending away a million and a half of dollars to buy sugar, as they do now. He holds that a factory should have at least one-half its beets accessible by ordinary wagon hauling, the expense of rail transit, in his opinion, being too considerable to depend upon entirely.

We have long thought that Colorado was an ideal State for the development of the beet sugar industry. The experiences of several years at Lehi, Utah, ought to confirm our Colorado friends in this. Where the beets can be produced by irrigation, the control of their sucrose content is far more certain than in the

rainy regions, where an excess of rainfall frequently leads to the production of inferior beets. We had hoped to have learned ere this of a sugar beet factory in Colorado, and believe now that the good people of that State are losing time in not devoting themselves more actively to this industry. While on a visit to that State some ten years ago the editor of this journal endeavored to impress it upon his friends there that the Colorado conditions are ideal for sugar beet production, and learned then that the matter had been under consideration for some ten years previously, but that no definite action had been taken. Since that time the industry has been successfully developed at Lehi, Utah, in the arid regions and enormously increased in California, where the rainfall is very limited.

Colorado is already noted for her production of potatoes in the vicinity of Greeley, where it was at one time thought that potatoes could not be produced; they are now producing as high as 500 bushels per acre and of very fine quality. When they once get into sugar beets they will doubtless rise to similar success in their production.

Industrial Schools.

The grand work done by the Massachusetts Institute of Technology, where some 1100 or 1200 students are constantly at work and engaged largely in the study of the textile producing industries, is leading to similar schools elsewhere. Governor Dyer, of Rhode Island, has recently been urging upon the General Assembly of his State the organization of a textile school. He discusses the importance of technical education and the necessity for bringing the American artisan up to the highest standard of excellence in order that he may maintain that precedence over his foreign competitors that he now possesses by his knowledge of the use of modern machinery.

In Louisiana we have felt the need of technical education in the sugar industry and the organization of our Sugar Experiment Station, of our Sugar School and of THE LOUISIANA PLANTER, our sugar newspaper, have given a wonderful impetus to the sugar industry in this State, so that really we have become the leaders of the world in the production of cane sugar so far as the technique of the in-

dustry is concerned. The development of the industry along scientific lines in this State has been a continual surprise to its most sanguine friends, and our only hope is that our leadership may continue indefinitely and not be crushed by our undue sympathy for the Cubans, and doubtful reciprocity treaties, or by the annexation of the Hawaiian Islands with half a hundred sugar houses and tens of thousands of colored people. The Cubans and the Hawaiians have doubtless many merits, but we should prefer them both as separate autonomies, without their bringing into our Union their relatively immense population composed chiefly of the inferior races.

Sugar Beet Growing in Nebraska.

The United States Agricultural Experiment Station at Lincoln, Neb., is still devoting itself to the development of beet culture in that State, and in its eleventh annual report, recently published, Director McLean says that they are giving a large amount of time to this matter, especially in the way of the distribution of beet seed, printed instructions and other incidental information. On April 5, last year, some 500 pounds of beet seed were received from the Oxnard Company, of Norfolk, which was distributed among 433 persons in the State, with printed instructions concerning the planting and culture of the beets. A large number of these responded to the director's request for samples, or reports, and the general results were comparatively satisfactory.

The results of analyses show an average of 12.34 per cent. of sugar in the juice, with a purity of 75 per cent. The highest sucrose content was 16.8 and the lowest 4.67 per cent.

The Crop Situation.

During the past week some wet but a preponderance of dry weather has prevailed throughout the sugar district. The conditions have been sufficiently favorable to allow active prosecution of field work and cane planting has been vigorously pushed.

Although there are fugitive rumors of rotting seed heard in various localities there does not seem to be any good foundation for them, and the seed cane is as a rule turning out to be in very good condition. The worst that can be said of it is that the climatic conditions have

been such as to cause it to sprout some. At this writing a rain is falling which is doubtless general over the sugar parishes, and will cause a vexatious interruption to the anxious planters who are in a hurry to catch up with their work.

The Louisiana Sugar Planters' Association.

The February meeting of this association was held last Thursday evening, at its rooms on Carondelet street. President Emile Rost was in the chair, Secretary Dykers at his post, and there was a very good attendance, among those present being Messrs. Walter A. O'Neill, L. M. Soniat, John S. McDonald, B. C. Le Blanc, G. G. Zenor, John Dymond, James Mallon, J. W. Bodley, C. R. Churchill, H. G. Morgan, Jr., George Sarpy, J. P. Kemper and R. J. McQuiston.

On motion the reading of the minutes of the previous meeting was dispensed with. There being no new business and no communications on the secretary's desk, the regular topic of the evening, "Handling Cane at the Carrier," was at once taken up. A number of interesting papers on this subject had been prepared and were read to the meeting, the first being presented by Mr. B. C. LeBlanc, of the firm of LeBlanc & Nadler, followed in the order named by Messrs. J. W. Bodley, R. J. McQuiston, J. P. Kemper and C. Robert Churchill. All the papers were highly interesting and instructive, and on motion the authors of the various papers were tendered the thanks of the association for the same, and the papers were ordered to be published with the proceedings, and appear in full in this issue.

An extended discussion then ensued relative to the numerous points covered by the papers, which was participated in by Messrs. LeBlanc, Churchill, Zenor, Cooper, Mallon, Bodley, Judge Rost, O'Neill, Kemper, Dickinson and others, a full stenographic report of which will be found in the next issue of THE PLANTER. At the termination of the discussion Mr. Dymond stated that Col. C. Harrison Parker, who had been appointed vice president for Louisiana of the Omaha Exposition, to be held in that city next June, was present and desired to say a few words to the meeting, and to urge on them the importance of making a good exhibit of the sugar in-

dustry of the State. Colonel Parker made a short address asking the co-operation of the association in his efforts to have the great sugar district of Louisiana creditably represented at Omaha, and, on motion of Hon. Walter A. O'Neill, it was decided that a committee, the number and personnel to be left to the president, be appointed to take the matter in hand and insure a fine display.

The selection of a topic for discussion at the next meeting being then in order Mr. Dymond suggesting "The Shaving of Stubble," which was adopted.

The president called attention to the fact that the next meeting was the annual meeting at which the election of officers to serve during the ensuing year would be held, and expressed the hope that there would be a large attendance.

The meeting then adjourned.

Sugar in Mexico.

In the November *Bulletin of the Bureau of American Republics*, Mr. R. H. Vannah, a well-known Louisiana sugar engineer, then in Mexico, is quoted as stating that a first-class, modern sugar house plant, capable of handling 50,000 to 75,000 tons of sugar cane per season, could be set up in Mexico for \$100,000—American currency; that 50 tons of cane per acre can readily be grown; that with improved machinery and processes the cane will yield 180 pounds of sugar per ton; that the expense of cultivation, cutting and delivering cane at the mill may be safely placed at \$3 per ton.

Mr. Vannah gives, also, an estimate of the monthly expenditures incident to manufacturing sugar from the cane from 1000 acres of land, the days being estimated at 24 hours each, and the wages payable in Mexican currency. His estimate is as follows:

Cane sheds, two shifts of four men each	\$144 00
Cane mill, two shifts of two men each, grinding 500 tons of cane daily	72 00
Bagasse ovens, two men	36 00
Boilers, two men to handle	36 00
One chief engineer and two assistants	720 00
Clarifying, two shifts of two men each	72 00
Double effect, two men	36 00
Sugar maker, at rate of 50 cents per 1000 pounds of sugar made, and 500 tons of cane daily treated, at 180 pounds per ton of sugar	1,375 00
Two assistants to sugar maker	100 00
Filter presses, two shifts of two men each	72 00

Firemen, two shifts of two each	72 00
Tank men, two shifts of two men each	72 00
Centrifugal, four men, at \$50 per month each	200 00
Assistants, two men, at \$40 per month each	80 00
Stevadores, two shifts of four men each	144 00
Sugar weighers, two men, at \$30 per month each	60 00
Cane weighers, two men, at \$30 per month each	60 00
Electric light, one man	30 00
Book-keeper	125 00
Assistant book-keeper	50 00
Foremen, two cane-yard foremen	80 00
Boarding of 15 employees, at \$22.50 each	377 50
Chief cook, per month	60 00
Assistants, two men	60 00
Fuel, petroleum, incidentals, etc., per month	550 00
27,000 barrels monthly, at 75 cents each	20,250 00
Total	\$21,863 50

The sugar manufacturing season is about three months, or, speaking literally, one hundred days; this would make the total expense of the crop \$83,018.34. To be added to this total expense of manufacture is the cost of cultivation and delivery at the mill, calculated by Mr. Vannah at \$150,000, making the entire expense upon a crop of 1000 acres, \$233,018.34. He calculates the product from the above 1000 acres at 9,000,000 pounds; at a minimum price of 6 cents per pound this would bring \$540,000, or a net profit on the crop of \$306,981.66, showing the enormous profit to be realized from the production of sugar in Mexico. In addition to the above profit, he calculates that there should be realized from the sale of aguardiente about \$66,000 per annum. Mr. Vannah estimates the total cost of cultivation, manufacture, and packing of sugar to be about 2½ cents per pound in Mexican silver.

Mr. J. P. Kearney, of the lower coast, was a recent visitor to the city, and put up at the Cosmopolitan Hotel.

Mr. R. R. Cocke, of St. Mary parish, and Mrs. Cocke were in the city on a visit during the past fortnight.

Mr. M. Bagley, a prominent planter of Ramsey, La., accompanied by Mrs. Bagley, came up to the city last Sunday and registered at the Commercial Hotel.

Mr. Arthur Tarby, a valued attache of Calumet plantation, on Bayou Teche, came up to the city during the past week and registered at the Hotel Royal.

Mr. C. S. Matthews, of Raceland, was in the city on a visit last Monday. Mr. Matthews registered at the Hotel Grunewald.

Hon. James A. Ware, of Belle Grove plantation, in the sweet parish of Iberville, was a guest of the St. Charles Hotel last Monday.

LOCAL LETTERS.

Ascension.

Editor Louisiana Planter: We had another dash of rain at the beginning of the week, but with that exception the weather has been good and the earth has dried sufficiently to permit the general resumption of cane planting on the plantations of this parish and section. The signs at this writing indicate more rain, however, and there may be a good bit of trouble yet in store for those who have much of their seed still unplanted.

Fugitive reports have obtained some circulation that rotting seed is giving trouble and uneasiness in some localities, but no well-authenticated instance of such a condition of affairs has come to the knowledge of your correspondent. All the planters and field marshals whose opinions and evidence I have sought concur in the statement that their seed is sound and good, the only drawback sometimes apparent being a disposition of the plant to sprout. Capt. John T. Nolan, with whom I conversed on Tuesday, declares that he has never seen seed on St. Elizabeth plantation to equal that which is now being planted there. With a continuance of dry weather planting will be finished at St. Elizabeth next week.

By the way, a painful rumor has been heard to-day to the effect that Captain Nolan was taken suddenly ill and that one of our leading physicians was hastily summoned to his relief. The captain has been in indifferent health for some time past, hence the report has created much uneasiness among his many friends. The general hope will be that he may speedily rally and completely recover his former vigorous health.

No little disappointment has been occasioned among the well wishers and admirers of Hon. Wm. Porcher Miles and his estimable family—and the number of these is legion—because of the decision of the Supreme Court of the State reversing the ruling of District Judge Guion on the preliminary issue of no cause of action in the suit entitled “Mrs. Margaret Cox *et als.* vs. Mrs. Nannie Von. Ahlfeldt *et als.*” Judge Guion sustained the motion of no cause of action as filed and maintained on behalf of the defendants, but the higher tribunal took a contrary view of the matter, overruled the contention of the defence and remanded the case to the district court for trial upon merits. It is the confident hope and belief of the counsel and friends of the defendants that the final outcome of the litigation will completely vindicate their title to the fine property which has been so greatly improved under their management.

Much local interest is centring in the fair to be held at Burnside on Saturday for the benefit of the pretty Episcopal Chapel in course of completion there, under the patronage and direction of the Miles family and their neighbors and employees. The entertainment promises to be more than ordinarily attractive, and one of its leading features will be a shoot under the auspices of the Burnside Gun Club. Half a dozen clay bird events are on the programme, but the principal event, as described by Dr. Miles, is to be “a dinner event,” at which

some of the poorest trap shooters in the club are being backed to do big execution.

The uneasiness felt in some sections concerning the rising river and the consequent interference with levee work has not been apparent in this vicinity. Thanks to the vigilance and energy of our levee boards the embankments that protect Ascension from inundation are seemingly in excellent condition, and, so far as I am informed, there has been no stoppage of work here by reason of the rising of the waters. The river is almost stationary now, and in all probability the crest of the flood had about reached us. The town of Donaldsonville is particularly well situated as to levees, both the river embankments bordering the town having been greatly enlarged and strengthened. A substantial fascine of planking is being placed along the water side of the river levee which will do much to protect the big embankment from wave wash.

Elections are to be held in the seventh and eighth wards of this parish on the 26th of February, to settle the question: “Shall a five-barb wire fence be deemed a legal fence, and it be unlawful for hogs, goats, sheep, geese, etc., to be allowed to roam at large in said wards?” The sentiment in favor of roaming hogs was formerly very strong in that part of the parish which is commonly known as the New River section, but as the vacant lands have been taken up by settlers and transformed from “public lands” into legal homesteads, the feeling toward the wandering rooster has gradually undergone a corresponding change, until now it is looked upon as a foregone conclusion that the popular voice of both wards will be expressed very emphatically in favor of hog owners being required to fence in their live pork instead of compelling all their neighbors to fence out the useful yet troublesome and destructive beasts.

The work of drying out second sugars has been in vogue at a number of Ascension factories, and the results obtained, as a rule, have been very good, more than meeting earlier estimates.

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather during the past week has been, barring a few showers in some localities, favorable, and the work of cane planting goes briskly on. So great is the rush that some planters have their meals sent to the fields, so as to lose no time, nor let any one else lose any while the good weather lasts. Some lands are being successional with cane, but the consensus of opinion among planters is against this practice, and we notice the most successful do not do it. Other lands heretofore planted in cotton are being put in cane, and there is no doubt about there being a fair reduction in the cotton acreage in this parish.

We have reports from the east bank of the river, the lower end of the parish, the Bayou Jacob section and from Bayou Plaquemine, and all say that the seed is good—better than was expected.

Mr. Charles S. Burns, of Cinclare, the genial agent of Mr. Harry L. Laws, was at Plaque-

mine this week and closed several contracts for the purchase of cane, and others for advances, a great desideratum for many who have not the means to put their sugar houses in first-class order. Mr. Burns reports the prospects good for the approaching season, and that Cinclare will get a larger quantity of cane nearer home this year than formerly.

Mr. Edwin H. Comeaux has taken charge of the field at Reliance, the fine property of Mr. Louis Lozano.

Mr. Charles A. Lobdell, of Bayou Goula, has rented the tract of land belonging to his sister, Miss Louisa S. Lobdell, and several tracts adjoining, opposite Bayou Goula, and will plant them in rice. Mr. Lobdell is a man of energy and good judgment, and his venture will undoubtedly prove a success.

We have to record another large sale of plantation property, which was concluded last Wednesday, by which Mr. Louis Danos, of Ascension, acquired the half interest of Mr. Joseph A. Grace in the Milly plantation and store. The consideration was \$25,000, and is but another evidence that there is confidence in sugar. The new firm will be LeBlanc & Danos, and for energy and determination they can not be excelled.

The heirs of the late Daniel Levy have sold their little plantation at the upper end of the parish, adjoining the Australia, to Messrs. Emile and Victor M. Lefebvre, who have annexed it to Australia. Several other sales are negotiating, but of these more anon.

Mr. Thomas E. Matthews, of Rosedale, is advertising his Trinity plantation, on Bayou Gross Tete, for sale. There is not a finer location in this State for a central factory, and the quantity of land to be planted in cane on the place this year would supply seed sufficient for several million pounds of sugar another season, and with a little encouragement the whole neighborhood would go into cane.

Messrs. Barrow and Le Blanc, of Pecan plantation, expect to wind up their planting this week.

Mr. Ottmar Wenk will put in sixty acres of cane on the Talbot place, and will sell it to Cinclare.

The family of Mr. E. Douglas Leche, of Bayou Goula, moved into their home at Dunboyne plantation last Monday.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: The weather during the past week has been remarkably mild, considering the fact that the middle of February is several days off. Ineed, the balmy sunshine, the singing of the birds and the sprouting of the grass are all strongly suggestive of spring—say the first of April. This mild weather is not regarded with great favor, as the fear is general that it will induce a premature growth of vegetation, which will be killed by a freeze later on.

The ground is still somewhat wet from recent rains, but cane planting is nevertheless being pushed forward with all speed. Both stubble and plant are in good condition, the only complaint being that the seed has sprouted some-

what. The plant cane is remarkably well preserved considering the heavy rains of January, which, it was feared, would prove exceedingly injurious.

The best all-around average in tonnage obtained during the past season was that of the crop of Mr. David Devall's Orange Grove plantation, where the entire crop averaged twenty-five tons per acre. Mr. C. S. Devall informs me that a patch of forty-five acres yielded an average of 4500 pounds of sugar per acre. This, of course, is an excellent yield. If the planters could obtain average results like those recorded above they could almost regard tariff protection of our great industry with a certain degree of indifference; but it is scarcely necessary to say that these fine results are few and far between, and that the planters are compelled to exercise the most rigid economy, coupled with the use of the most up-to-date methods, in order to succeed.

Reports from the different plantations throughout the parish indicate that the cane acreage will be increased this year. In this connection, it is understood that the Kaufman plantation, in the Devall neighborhood, will be planted in cane. There will probably be a corresponding reduction in the cotton acreage of

WEST BATON ROUGE.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Notwithstanding some mornings with thin ice and frosts, and a rain the latter part of last week, planting is now general, and the sandy lands ploughed last fall and reploughed this season are in good condition for planting. Warmth and sunshine are wanted to expedite field work, and elevate the temperature of the soil to hasten the sprouting of the eyes of the mother canes planted and those to follow.

As to the seed cane, its condition varies, as is very generally the case, owing sometimes to inexplicable causes. On the same plantation, canes can be found badly sprouted, and again even on dark soils the eyes have barely pointed. Doubtless the time of windrowing plays an important part. Yet the manner of manuring the canes prior to laying by has a noted influence; where heavily fertilized the growth was too vigorous, which fact caused the eyes to elongate, when they should have remained dormant. It will be found that the application of heavy doses of manure, with its nitrogen in a potential form, is very detrimental, and often causes the canes in the windrow to deteriorate, the amount depending on the after climatic influences.

Last fall when quantities of cane were put in windrow, they were making rapid growth, and some planters were very reluctant to put their seed in windrow; but the dread of an early freeze caused them to pursue the course they did.

The majority of the planters are so busy with their cane areas that corn land has received but little attention; yet a limited amount should be planted this month if possible, to curtail the feed bill, as soon as the fields receive the last working.

Latterly, Mr. Thos. Casey disposed of the

Greenwood to the Messrs. Pregeant for the sum of \$40,000. Recently the residence at Cedar Grove, of Messrs. Blum & Prevost, was destroyed by fire.

The dredgeboat on Southdown, of Mr. H. C. Minor, is again in operation, and at the factory latterly wagon sugars have been worked off. The dredgeboat now in Bayou Terrebonne, above Bayou Cane, has been at work for some time. What progress will be made in the spring when the weather gets dry remains to be seen, as the boat is constantly cutting up an incline. Water must be had from some other source or the cutting must be deep enough to cause tidal level to follow.

Wednesday of last week there was thin ice, frost, and the day clear; Thursday, frost and fair; Friday, ice, with heavy frost; Saturday morning, showers; Sunday, another light frost, and again on Monday; Tuesday, favorable, and Wednesday clear and cool.

Through the courtesy of Mr. J. T. Moore, Jr., at Schriever, the following official statement for the month of January has been received, viz.: The maximum temperature was 83.5 on the 12th; the minimum on the 2d, when the thermometer registered 21 deg. F. Total precipitation 4.38 inches.

The weather report for the last week of the month was as follows:

	Temperature.	Rainfall.	Sunshine.
January	24.64.5	38.4	.....
"	25.71.0	55.2	.....
"	26.71.8	41.0	.24
"	27.62.4	38.1	.16
"	28.65.0	40.0	.....
"	29.66.1	44.8	.....
"	30.66.0	48.1	.02
	66.7	43.6	.42

TERREBONNE.

Lafourche.

The sugar planters have profited by the fair weather of the last week by pushing along planting. We learn from various sections that the seed cane is in good condition, and if the favorable weather continues a week or two longer planting will be well advanced, if not entirely finished.—*Thibodaux Sentinel*, July 5,

Vermillion.

Editor Louisiana Planter: Since my last writing the general tenor of the weather has been very good. On last Friday night we were visited by a very heavy rain; but of short duration. It clouded up early Friday afternoon and about 11 o'clock Friday night it began to rain and rained for an hour, but Saturday morning it was clear and has remained so to date, though the weather looks a little unsettled to-day. This spell of good weather has given the farmers an opportunity to resume their work, and every man seems to have taken advantage of it. Ploughing is being rapidly pushed now, preparing land for general crops, the acreage of which will be largely increased over last year. Any direction you drive out from Abbeville you will see acres and acres of virgin lands being broken for either cane, corn, cotton or rice that has never had a plow in it before. Most of our small farmers are buying better stock to cultivate their lands

than they have been working; several car loads of good mules have been sold here this season to small planters and the demand is still good. It will be only a question of a few years until the little Creole pony will be a thing of the past, and in their stead large and powerful mules will be used to break the soil to a depth that will insure the tiller the greatest results for the efforts put forth.

Cane planting is being rapidly pushed all through the sugar belt of the parish, and we are glad to state that the seed is remarkably good. It was reported some weeks ago that seed cane was spoiling very fast, but later developments proved that the report was confined to only a few parties. The cane industry is very much stimulated this year on account of the price paid for cane last fall. The acreage will be increased generally, and in some special sections as much as 300 per cent. over last year, and with the assurance of a large refinery near Abbeville in the near future, and the prospects of the extension of the Franklin railroad into the Prairie Greig section of the parish, there will be a further stimulation and an increase of at least 500 per cent. next year.

Cotton acreage will be considerably reduced in the parish this year. Our people are tired of raising 4-cent cotton on land that will make 20 tons of cane or 10 barrels of rice. Of course a large percentage of the farmers will be forced to raise cotton, for they are too far from shipping point to plant cane or too far from artificial irrigation to raise rice.

The rice acreage will be increased at least 25 per cent. over last year and possibly more. Extensive preparations are being made in west Vermillion, so we are informed, to extend the Gueydan canal a distance of six miles further west to tap the Bayou Queue de Tortue at deep water near the Mermentau river. This will open up several thousand acres of rich virgin lands to rice culture and will insure an abundant supply of water and undisputed success for the irrigating system by surface canals.

Mr. L. Forsyth, Jr., of the Caffery refinery, was in Abbeville this week looking after the interest of his plant. The object of his trip out here is to ascertain the prospects for the coming season and to set a price on cane by which the refinery will stand during the year. The Caffery has been the standard for a number of years in regulating the price of cane, all other plants waiting for them to set the pace. The Caffery gave entire satisfaction last year, and will doubtless get a handsome share of the patronage this coming season.

Mr. O. M. Nilson, who has recently bought several large sugar plantations in Vermillion, is now spending a month at Bay St. Louis, Miss., where he is interested in establishing a bank.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: Much better weather has prevailed since the first of the month, up to date, than at most any other time during 1898. On the 2d and 3d instants the mercury dropped down to the freezing point,

developing thin ice, but not cold enough to injure anything except, perhaps, some premature fruit buds and blooms. This was followed on the morning of the 5th instant with a heavy shower, clearing off before noon with the wind sharp from the north, drying out the soil so that ploughing was resumed on the morning of the 7th instant.

Cane planting is being pushed forward on a number of places. Mr. C. F. Knoll informed me that he had planted, up to the afternoon of the 7th, 112 acres to cane, and has about 90 acres more to plant, which, if the weather holds propitious, will bring cane planting for this season to a finish on the Ellen-Kay plantation. Mr. R. Woods, manager for Mr. Knoll, has done some excellent work at cane planting. The soil appears to be in a splendid shape for the work he has in hand, being very loose and mellow, showing the advantage there is in having good drainage, without which successful planting can not be done at this or any other season of the year.

Mr. M. Bubenzler, Bunkle P. O., had his forces out on the first of the week busily engaged planting cane.

Mr. Grisamore, managing the Leinster plantation this year, has been engaged for some days past at planting. The acreage to be planted to cane on Leinster this season will be much greater than it has been during past years, but how much so I have not yet been able to learn.

Mr. D. McMillan, managing on the old Ewell plantation, Evergreen, for J. U. Payne & Co., of New Orleans, informed me this week that he expected to commence planting cane about the 10th inst., and had abundant seed to plant fully 175 acres to cane, and will prepare for and plant an increased acreage to corn and pease this year preparatory to planting a greater area to cane next season.

Mr. John Brunson, of Evergreen, has rented Mr. T. J. Heard's fine place with the intention, if I have been correctly informed, of planting and growing cane, corn and pease.

Mr. Geo. W. Bennette will, if I am not mistaken, plant something like 100 or more acres to cane this spring.

Mr. A. D. Havard, Bunkle Postoffice, will plant quite a nice acreage to cane during the coming two or three weeks.

Mr. W. A. O'Quinn, Barbreck, is preparing to plant seventy-five acres to cane this spring. THE PLANTER's scribe has been informed that Mr. Henry Shaw, managing Barbreck plantation, will, providing the weather holds fair, begin planting cane during this week.

Mr. Shuman, Eola Postoffice, is preparing to plant some five acres to cane this and next week, with the intention of, as Mr. Shuman remarked to THE PLANTER's correspondent, "growing gradually into cane."

The Dora plantation, Mr. Regard's fine place situated near Cotton Port, has in contemplation, so I have been told, planting an increased area to cane for this year.

It seems at present that cane is the leading topic of conversation, and the only thing preventing the greater part of the whole country going into cane is the sad want of more sugar factories built close in touch with the cane

growers of Rapides, Avoyelles and St. Landry. With factories so established and of sufficient capacity to do all the work demanded of them, it would not be long until the last would be heard of five-cent cotton. But in good time it is to be hoped that capital will see its way clear and invest in sugar factory building in the above parishes.

ERIN.

St. James.

[Special Correspondence.]

Editor Louisiana Planter: The hum of busy industry is never heard in the agricultural arena. It is made manifest only in a deep quietude and the absence from the highways of the floating population that is always a prominent characteristic of the days of idleness. By this sign, then, we are assured that planters are busy with the seed time, and wisely taking advantage of every day of this spring weather to put fields in order for an abundant harvest. Five consecutive days of field work were accomplished last week, being the best on record since the beginning of the year. At the dawn of the 6th, which was last Saturday, a vexatious rain fell, thus abruptly interrupting the successful conclusion of the week. Following the rain came a heavy frost of a somewhat freezing character, but it did not do any palpable damage other than scorching the tops of stubble and fall cane foliage. Whether this week will wind up like its predecessors remains to be seen. Ideal spring weather prevails and as a consequence vegetation shows a vigorous spirit and dormant plants sprout almost magically. As in other sections our stubble crop is exceedingly promising. Notwithstanding the almost constant rains we had during the last month it is surprising to note how easily and prettily the preparing of the soil is done. In fact no difficulty on that score is encountered. Working partly on the tenant system appears to be still in vogue, according to the existence of same on many plantations. Labor is ample and of a good quality, owing no doubt to better prices paid.

Orders for cotton-seed meal are being promptly filled, and machines for distributing same are being put in order for the process.

ST. JAMES.

Trade Notes.

Standard Oil Company.—We desire to call attention to the advertisement of this well-known concern on page 4 of this issue. They have been supplying the planters with what they need in the way of burning and lubricating oils, linseed oils, gasoline, axle grease, candles and turpentine for so many years that they scarcely need any introduction, the goods speaking for themselves. Mr. P. S. Morris, the recently appointed special agent at New Orleans, is steadily extending the sphere of usefulness enjoyed by his great concern in this locality and has made many friends by his prompt and courteous attention to all, and by his exertions to give perfect satisfaction to all his customers. He is well known in the sugar planting community, is an esteemed member of the Louisiana Sugar Planters' Association, and the local interests of the Standard Oil

Company will surely prosper under his guidance. The company has its immense warehouse out on Jackson avenue and Claiborne street, where their general offices are also located, and altogether they are equipped in a way to handle their business with the greatest accuracy, expedition and dispatch.

Cane Cutters and Comminutors.—As will be seen in our columns, the E. W. Ross Company, of Springfield, Ohio, desire to call the attention of the sugar planting world to the Ross cane cutters and comminutors, which obtained their first conspicuity in connection with cane juice extraction by diffusion, and which were subsequently found to materially increase the juice extraction by the mill process. These cane cutters and comminutors have been used to a considerable extent in Louisiana, Texas and also in the tropics. The E. W. Ross Company, of Springfield, Ohio, have issued a handsome illustrated descriptive catalogue in the English, German, French and Spanish languages. This catalogue will be sent to any one interested who may apply for it, with any further particulars that may be desired.

The Dutch sugar planters in the island of Java, which is now the largest cane sugar producing country in the world, have given considerable attention to the Ross apparatus, and seem highly pleased with it, a number of outfits having been set up there. All inquiries concerning the apparatus will be promptly answered by the makers.

Machinery for Sale.—Elsewhere in this issue will be found the advertisement of Hon. T. S. Wilkinson, who offers for sale all the machinery in the Deer Range sugar house, on the Lower Coast, consisting of double mill, boilers, clarifiers, open steam train, vacuum pan, centrifugals, sugar packer, conveyor, sugar wagons, pumps, engines, etc., the outfit having a capacity of making 3,000,000 pounds of sugar. All desirous of purchasing anything in this line should address Mr. Wilkinson at Room J. Morris Building, New Orleans.

Mr. J. M. McBride, a prominent planter of Terrebonne parish, was at the St. Charles on Wednesday.

Mr. P. M. Lambremont, of St. James parish, was in the city on a visit a few days ago.

Hon. John D. Shaffer was a guest of the Commercial hotel during the past week.

Hon. Walter A. O'Neill and Mrs. O'Neill, of St. Mary parish, where Mr. O'Neill makes his Linwood plantation bloom like a rose and bring forth tons of saccharine richness, were in the city on a visit a few days ago and made their headquarters at the Hotel Royal, their customary stopping place.

Messrs. Chas. H. Munson and Harold F. Munson, of Assumption parish, were in the city on a visit a few days ago, and made their headquarters at the Hotel Grunewald.

Mr. G. M. Kimbro, of Iberia parish, was a recent visitor to New Orleans. Mr. Kimbro put up at the Hotel Royal.

Mr. W. K. Morrow, of Sugar Land, Texas, was registered at the Cosmopolitan Hotel on Wednesday.

FOREIGN LETTERS.

Berlin.

BERLIN, January 23, 1898.

Editor Louisiana Planter: In this, and also in the other beet countries of Europe, we continue to have a sort of tropical rainy season instead of a winter in more or less keeping with the general climate of these latitudes. Rains and fogs are the permanent features of the weather prevailing a long time since, and it seems to come true, as prophesied by those who believe themselves to be authorities in meteorology, that we shall have no winter, properly called so, at all. This, indeed, would not be a favorable circumstance, for winter is necessary to give the soil the seasonable rest, but no winter would be better than a very late one, which might be injurious to the interest of agriculture in more ways than one, but mainly in causing eventually the field operations being delayed in consequence of which the beet sowings would be postponed to a late hour, and the period of vegetation curtailed perhaps by several weeks. Last crop has been sown comparatively late, and though turning out bad, it has been nevertheless, in point of yield to the acre, short of the preceding year. As to the indications with regard to the import of this year's beet sowings, there is little to be said about it at the present stage. Germany is bound by her law of the contingent, and therefore at least a like area to last year is most probable. In Austria, fabricants and farmers seem to have come to terms, and and in France the former show some willingness to pay somewhat higher prices for the beets than last year. Contracts are being made already everywhere, but such is the case every year at this time, and any conclusion drawn as to the entire extension of the sowings would be decidedly premature.

These considerations, however, do not prevent people from guessing what may or may not come to pass, and unfortunately such guesswork is a factor in the sugar markets during the time when the weather ceases to be of any moment.

I am very sorry, but I can not help returning to the never-ending subject of the bounties, certain events having taken place which I feel obliged to briefly mention. There is, in the first place, the invitation to the bounty conference issued by Belgium, which Germany and Austria are said to have accepted, while the attitude of France is still doubtful, and it is believed that the latter country will take part only on the condition that the question of her indirect bounties is not touched at all. Nevertheless, somewhat sanguine persons think that the conference will meet next month at Brussels. But, at the same time, that the bringing about of the conference has become almost certain, the expectations of its success has been considerably reduced by the speech of Mr. Chamberlain, given last week in Liverpool, in which he, for the present at least, deprecates the application of countervailing duties on the part of Great Britain. The task incumbent on the British government is, after the royal commission has taken evidence as to the critical situation of the West

Indies, to do something for the latter, and the West Indians themselves are of the opinion that only countervailing duties, and nothing but these, could save them. Mr. Chamberlain, the present Secretary of the Colonies, does not, however, concur in this idea. At least he thinks it most doubtful whether the proposed remedy would prove effective, while on the other hand he fears that it would be dangerous for the sugar trade of the mother country and injurious to many interests involved in the same. He therefore thinks it best to follow the plan of the majority of the commissioners—that is, to lend the colonies a helping hand by financial subventions in the form of loans or otherwise. To what extent this help shall be tendered to the suffering colonists he did not say, and it must be left to be decided by the parliament; if the latter, however, sanctions this scheme, the world has the extraordinary spectacle to see that free-trade-England enters the line of bounty-paying nations, for the cash paid to the West Indians is nothing but a bounty in a peculiar form, and the United States will have to look to it and to take into consideration whether the English West Indian sugar is not liable to pay the countervailing duty. Any way the bounty system bids fair to become more general instead of being restricted to a narrower compass. And the conference? There might have been some hope of success as long as England threatened to apply coercitive measures, but after the late developments, and especially the declaration of Mr. Chamberlain, this hope must be abandoned, for France, to be sure, will not give up her large indirect bounties, and consequently the other countries are not able to abolish theirs. Besides the directors and executive committee of the German large sugar society have resolved to submit to the government of the empire a petition to the effect that they should not proceed to a one-sided or single-handed abolition of the bounties, and that, if a general agreement should be arrived at, the industry should be given a transient period for the preparation of the new departure. This latter, however, according to present prospects, appears to lie very far distant.

On the sugar industry of New South Wales a German consular report contains the following data: In the campaign 1896-97 the area under cane culture amounted to 12,567 hectares (one acre equal 40.5 hectares), or 767 hectares less than last year. The surface cut, however, was 1536 hectares larger, its size being 7363 hectares. The crop of cane from this area was 325,400 tons or 44.2 tons to the hectare, which shows an increase over last year of 8 tons per hectare. The sugar produced represents a weight of 29,014 tons, so that the crop to the hectare reached 11.2 tons to the hectare, or 185 tons more than in the preceding campaign. There has been besides an importation of 39,109 tons and an exportation of 4668 tons, and it appears that the colony in question has a fair interest in the sugar, as well as in the agricultural, industries and in the commercial line.

The statistical position of Germany, Austria and France at the end of December is defined by the following figures: Production, 2,991,127

tons (1896-97 2,912,151 tons); importation, 55,422 tons (79,679 tons); exportation, 847,357 tons (754,646 tons); consumption, 834,501 tons (842,144 tons); final stocks, 2,118,873 tons (2,290,475 tons); increase of stocks in December, 374,534 tons (466,942 tons).

The markets were last week again very quiet, and to the moderate offerings alone it must be attributed that the prices have not suffered larger loss. The general dullness can not be accounted for by any changes in the general position, and, therefore, it is believed that as soon as the large supply acquired by the buyers toward the end of last year is disposed of a fair revival of activity will be witnessed. The quotations are for actual 88 per cent. rendement at Magdeburg 10 to 10.20 marks, and for delivery January at Hamburg 9.20 marks f. o. b. Refined are also quiet and partly lower.

R. HENNIG.

Dutiable Value of Sugar.

The American Sugar Refining Company yesterday filed a petition in the United States Circuit Court for this district, asking the court to review the decision as to law and fact rendered November 18 last by the Board of United States General Appraisers as to the rate and amount of duty on sugar imported by the petitioners on March 11, 15 and 30, 1897.

The merchandise was classified and assessed for duty at 40 per cent. *ad valorem* under Schedule E of the Tariff Act of August 28, 1894, upon the value thereof, and reported to the collector as the value of the sugar in condition as landed in the United States, and not upon the values thereof in the principal markets of the country from which the sugars had been imported at the time of shipment and in condition as shipped, which is the dutiable values thereof as prescribed by law, although such dutiable value was reported by the appraiser as part of his return of appraisement, and the entries were liquidated accordingly.

The importers claim that the merchandise is dutiable at 40 per cent. *ad valorem* upon the actual market value and wholesale price of the same in the principal markets of the country from whence it was imported at the time of shipment and in condition as shipped. The Board of General Appraisers, after a hearing, overruled the protest of the importers.

The importers, in their petition, claim that the board was in error "in not holding that the action of the collector in assessing duty upon the increased value of the said sugar reported by the appraiser as due to drainage on the voyage of importation, the same being the value thereof at the time of landing and in the condition thereof as landed, was illegal, and not the dutiable value of such merchandise; and in not holding that any advance in the value of the sugar occurring subsequent to the date of the shipment thereof from the place whence imported, did not constitute an element of dutiable value."—*New York Journal Commerce, December 20.*

Mr. James Colomb and Mrs. Colomb, of Terrebonne parish, were guests of the Hotel Royal recently. Mrs. Colomb is the daughter of that sterling citizen, Col. Wm. Minor.

BEET SUGAR.

Eddy, New Mexico.

There is an air of quiet pervading the great sugar factory just now, and it will doubtless continue till the return of Manager Goetz from Chicago, when it is expected considerable alterations will be made. The office force is still busy, but the large number of employees in the factory proper have dispersed. It is expected that the "mother beets," now siloed, will be planted in about one month. The company will experiment more largely with seed this year than last. As soon as Manager Goetz returns preparations will be made for the season's crop.

The sheep being fed on pulp and hay at the sugar factory are showing the effect of the diet. They are getting fat, taking on a sleek appearance and in many ways showing that the experiment will be a profitable one to the owner, A. J. Crawford. The bunch consisted principally of "doggy" lambs, and were placed on the feed more as an experiment than anything else. Mr. Crawford is building more corrals, and will bring in another bunch from the range very shortly.

George H. West, of Greeley, Colorado, who has been making a tour of all the sugar beet districts of the country, arrived in Eddy this week, and has put in the time since looking over the situation here. Colorado is greatly interested in the beet sugar industry, and is striving very earnestly for the location of a number of factories. Mr. West is representing the promoters of the enterprise, and is inspecting the sections given up to beet growing and having factories, to see how they compare with the natural conditions existing in Colorado. He has been in Utah, California and Nebraska, reserving his visit here for the last. *The Argus* has no desire to give expression which would intimate in any way that Mr. West holds the opinion that Colorado is not supreme of all Western States, but it is known that he would feel most sanguine did the natural conditions of Colorado but equal those which he found here. He is an interesting talker, and fully appreciates that all new industries must pass through a certain stage of trial and experiment ere reaching complete and coveted success. As an illustration he cites the famous potato districts of Greeley. It was only a few years ago that it was considered, and so announced, that it was impossible to raise good potatoes there. Now the entire county is given up to them. Two hundred, three hundred, and even as high as five hundred bushels to the acre being produced. And the quality is known to every one. Perseverance and intelligent study and cultivation did it, and Mr. West holds that the same thing must apply in the establishment of the beet sugar industry. And who shall deny it?—*Pecos Valley Argus, January 28.*

Eddy, New Mexico.

A telegram from Manager Goetz to Auditor Driggs, received Saturday, states that in company with the officers and directors of the sugar company he would leave Chicago, Wed-

nesday, for Eddy. This should bring them in on to-morrow's train. The men who, by their investments here, made the sugar factory in Eddy a certainty are coming to look over the situation with a view to further extension and improvements. These improvements—having as their object the enlargement and increased capacity of the factory—have already been explained to them, and in all probability after having looked over the field thoroughly, instructions will be given to proceed with the work.

The work of the present season and succeeding campaign is to be pushed very vigorously. It is the intention of the factory management to contract for 3500 acres of beets. This is the number of acres desired, and the number that will be secured. All work and arrangements are in temporary abeyance, pending the arrival of the party from Chicago. After their visit, things will begin to hum. The fact that the railway is to be extended at an early day will have a most beneficial effect upon the sugar interests of the valley, and, if such a thing is possible, accentuate the energy with which work will be entered upon.

A shipment of one car of sugar was made to Lordsburg, this territory, Saturday. A shipment will be made to El Paso this week. The company has but little sugar remaining and will soon dispose of it.

Indications, all things considered, are very bright for the sugar season and campaign in the Pecos Valley.—*Pecos Valley Argus, February 4.*

Los Alamitos, California.

J. Ross Clark, of the Alamitos Sugar Company, reports that the new machinery for the enlargement of the sugar factory is on the ground and is now being placed in position. The new machinery will enable the factory to double its output during the coming campaign. Fifty men are at work now, and by the first of next month there will be a hundred. It is planned to have the machinery all in place by June 1, a month ahead of the opening of the campaign on July 1. The acreage planted to beets about the factory has been increased to 7000 acres, or double last year's planting. This will make a yield of about 70,000 tons of beets to be turned into sugar this year.—*Anaheim Gazette.*

Chino, California.

The clouds are still being watched for the needed rainfall. There is yet time, however, for ample rains to make good crops this year. The close of the average rain season is two and a half months off, and we will not despair by any means until that time is passed without rain; and then we will remember the season of 1896, when we were all astonished at the ability of sugar beets to withstand drought.—*Champion, February 4.*

Change of Superintendent at the Lehi Beet Sugar Factory.

LEHI, January 28.—Manager T. R. Cutler, of the Utah Sugar Company, returned on Wednesday evening from a business trip to El Paso, Tex. He went to see Mr. H. A. Val-

ley, formerly chemist for the Utah Sugar Company, and the present superintendent of the Pecos Valley (N. M.) factory, for the purpose of securing his services as superintendent of the Lehi factory, the vacancy occurring through the resignation of C. A. Granger, who has ably filled the position for the past five years. Mr. Cutler stated that his mission had been a successful one, and that Mr. Valley would be the next superintendent of the company of which he is the general manager. Mr. Cutler was accompanied by Mrs. Cutler and Miss Edith Cutler as far as Denver, the ladies stopping off there until Mr. Cutler's return from El Paso.

Mr. Clarence A. Granger, who recently severed his connection with the Utah Sugar Company, has been identified with the company in responsible positions ever since the cornerstone was laid. He came to Lehi with E. H. Dyer & Co., the builders of the factory. The first year the factory was in operation it was run under the supervision of the Dyers. After the Utah company assumed charge of it, Mr. Granger was installed as superintendent, and has filled that position ever since, to the satisfaction of the management.

Mr. Granger has been identified with the sugar industry in the United States for many years, having been connected with the beet sugar factory in Alvarado, Cal., and the large refiners in San Francisco. During his connection with the Utah company he has visited Europe in the interest of the company, and has used his pen to good results in the propagation of knowledge on the subject of beet growing, besides addressing sections of Utah on the same subject. His latest address was delivered before a convention of the farmers of Weber county. Although he has devoted most of his time in the past to the sugar industry, Mr. Granger has proven himself to be an all-around practical Westerner, by engaging in any kind of legitimate work that came to hand. One year of his life was spent behind the counter in Auerbach's store in Salt Lake. He has also twisted brakes on a railway train and worked in the telegraph department; he has cut porterhouse steaks and mutton chops on a butcher's block; traversed the valleys of Utah in search of bunches of marketable beef, and invaded the treasure chambers of Mother Earth in search of the precious metals.

Mr. Granger will enter the employ of E. H. Dyer & Co., and will assist in building the factory at La Grange, Ore., and will have the supervision of the work during the first year the new factory will be in operation. Dyer & Co. have in contemplation the building of quite a number of factories within the next few years. Their object in securing Mr. Granger's services is to put each new mill under his management as built, and thus give the new companies and localities the benefit of his wide experience and thorough knowledge. Mr. Granger will carry with him to his new field of labors letters of endorsement highly commendatory of himself and his work in behalf of the sugar industry in Utah, from such well-known business men as George Q. Cannon, A. E. Welby, W. S. McCormick, John M. Cannon, Gov. H. M. Wells and Reed Smoot.—*Salt Lake Tribune.*

Proposed Beet Sugar Bounty Law in Ohio.

[Special Correspondence.]

COLUMBUS, Ohio, February 10, 1898.

Editor Louisiana Planter: The Legislature of the State of Ohio has taken preliminary action toward encouraging the growing of beets and the manufacture of sugar therefrom. Over sixty years ago the leading and wealthiest citizen of this county attempted to make sugar from beets, and failed, of course. For several years past the Ohio Agricultural Experiment Station, located near Wooster, one of the best equipped stations in the world, has given beets its closest and most intelligent attention, and from time to time during that period propositions have been discussed by people in various sections of Ohio to establish beet sugar manufacturing plants, but, as a rule, those who proposed to promote the enterprise, were groping in the dark. My opinion is that there will be no beet factory in successful operation in this State for some years to come. At the same time it can not be denied that there is a growing deep interest in the subject in this section of the country. This is proven by the fact that one day last week Senator Alexander introduced in the Senate a bill which aims to encourage the enterprise. It is modeled, more or less, after laws now or heretofore in force in other States, and reaches about 1000 words. It does not, by any means, satisfactorily cover the subject, but it is a positive move toward an end.

The first section creates the office of commissioner of beet sugar manufacture and provides that for the next five years the secretary of the State Agricultural Society shall act as such commissioner at a salary of \$500 per annum.

Section 2 provides that persons intending to engage in beet sugar manufacturing can register with this commissioner, stating its purposes, and certain other information, and shall be entitled to a share of the funds appropriated by the State as bounties.

Section 3 provides that all beets on which bounty is claimed shall be grown in this State; that a registered manufacturer can claim no bounty on beets grown by himself, and on none for which he has paid less than \$4 net a ton; and on no sugar containing less than 90 per cent. of crystallized sucrose.

Section 4 makes it the duty of the commissioner to appoint a resident inspector, under a bond of \$2000, at each factory making exceeding 2000 pounds of sugar a day.

Section 5 defines the duties of the inspector to be the weighing in of all beets, and that his determination shall be final between buyer and seller; that he shall stencil all packages of finished sugar, keeping an accurate account of the weights of both beets and sugar, and report daily to the commissioner at Columbus.

Section 6 makes the compensation of the inspector \$3 a day, and that of an assistant \$2 a day.

Section 7 provides that the quantity and quality of the product upon which bounty is claimed shall be determined by the commissioner, by aggregate reports of inspectors, veri-

fied by oath, and gives the commissioner power to inspect the private books of the factory, etc.

Section 8 designates the professor of chemistry of the Ohio State University as the person to fix the quality and quantitative condition of the product.

Section 9 provides that annually, on or before the first day in April each year, the commission shall prepare a detailed statement of the quantity of sugar made by each concern registered and claiming bounty, and shall apportion to each his share of the appropriation on sugar made in the preceding campaign.

Section 10 provides that not more than one cent a pound shall be paid; that the commission shall certify to the State Auditor the amount due each manufacturer, and the Auditor shall draw his warrant on the Treasurer for the same.

Section 11 makes it the duty of the commissioner to keep in his office books showing all the transactions herein provided, and compels him to make a full and complete report to the Governor each year.

Section 12 appropriates the sum of \$50,000, or so much thereof as is necessary, each year for five years, to be paid "in the manner prescribed in this act and for the purposes of making effectual the provisions thereof."

Section 13 makes the act take effect and be in force from and after its passage.

The bill has gotten no further than to be introduced, and there is yet no way in which to judge as to its fate. This General Assembly, so far as parties are concerned, is not a unit by any means, and up to date has accomplished practically nothing. Senator Alexander belongs to the majority, which has one vote in the Senate and half a dozen in the House to spare, but the recent senatorial contest demoralized party discipline, and now it is difficult to predict the result on any measure.

There is no question, however, but that some kind of a law looking to the encouragement of beet-sugar making will be in the books within the next two or three years.

GEO. U. HARN.

Beets for Sugar and for Profit.

Editor Louisiana Planter: Knowing the deep interest which THE PLANTER takes in promoting both the cane and beet industries in the United States, I herewith hand you the following excerpt clipped from the "Continental correspondent" of the *Germantown Telegraph*, believing that a careful reading of the same will be found both instructive and entertaining to all who are now engaged in or contemplate growing beets for making sugar as well as for profit.

ERIN.

The sugar beet harvest has been excellent this season, though, owing to the dry weather, the roots were difficult to lift. The average yield per acre was a little over eleven tons, and the contract price about twenty-four francs per acre, based on a seven degrees of density or saccharine richness, with an augmentation of seventy centimes for every tenth of a degree up to seven and five-tenths, and a diminution of ninety centimes for every tenth of a degree below seven degrees down to six and five-tenths. At this density the mills refuse roots—they would not pay working up. The average weight of the roots following the

Arras Agronomical Station is a shade over twenty-one ounces—a good saccharine root size. But the farmers have another string to their bow in cultivating beet. They buy the pulp at four or six francs per ton to mix with commercial aliments and fatten the lean kine and the ditto sheep that arrive by troops and flocks from all parts of France. That rich or intensive feeding yields very valuable manure, and it is to this latter that the fertility of the land in the northern districts is chiefly due. Hence why a sugar-beet mill becomes a boon and a blessing for the neighborhood in which it is situated.

How We Can Produce All of Our Sugar.

According to the *Statistical Trade Journal*, the increase in consumption of sugar in the United States for the year past was 6.91 per cent., requiring to supply it 136,177 long tons of sugar or over 305,000,000 pounds. Below are the figures:

	Tons of 2240 lbs.
Total consumption in 1897.....	2,096,263
Total consumption in 1896.....	1,960,086
Increase during the year 1897.....	136,177

This is not unusual, for the average increase of consumption in the United States for the past sixteen years has been 6.94 per cent per annum. According to the same authority, the world's estimated increase in manufacture of sugar in 1897 was only 64,727 tons.

There were in operation the past year nine beet sugar factories in this country. It would require three and three-fifths times the capacity of these nine factories to supply sufficient sugar for the increase alone, or 32 factories of same average capacity. If we wish at same time to provide for present consumption it would be necessary to build 55 times as many factories as are now in operation, or 495 factories of the average capacity of the nine we now have.

Now, then, if we were to build new factories at the rate of fifty a year it would take about ten years to catch up on present consumption of sugar, so that to supply this country with sugar the total number of factories required to be built each year would be fifty, plus thirty-two, or eighty-two. As meantime increase of consumption would likely continue in about the same ratio, the number eighty-two should be increased 5 per cent. to provide for that, so that we have a grand total of eighty-six factories to be built annually, for ten years, before this nation can grasp the often quoted \$100,000,000 we are spending every twelve months for sugar.

W.
California, January 22, 1898.

Beet Sugar in the East.

The directors of the Owen Sound (Ont.) Beet Sugar Company have formulated a memorial to the Ontario government, asking for a bounty of half a cent per pound on all sugar made from beets in Ontario, on condition that the beet growers get \$4.50 per ton for their beets, and a delegate to Toronto to lay the subject before the house. They will also ask the town of Owen Sound for a bonus of \$20,000 and some other privileges. They talk of building a factory.

A factory with 1000 tons capacity is to be

built at Toledo, O., in time for next year's crop. Local parties have subscribed the funds.

Binghamton, N. Y., has arranged for a beet sugar factory for 1898. The machinery will be taken from a French factory at St. Just, 150 miles from Paris.

There is only one sugar factory between the State of Wisconsin in the Northwest and the State of Nebraska in the middle West and the eastern Atlantic coast, and that is the State of New York.

There are good prospects that sugar beet culture will be engaged in in the neighborhood of Quincy, Ill., in the near future, and on an extensive scale. The Chicago, Burlington & Quincy Railroad Company is interested in a plan to induce the farmers to go into the business.—*New York Shipping List.*

Horse Feeding Tests.

Bulletin 51 of Maryland station gives account of some interesting experiments in horse feeding, and states the results attained. Among the feeds tested was the "new corn product." At Rockford, Ill., is a factory for the manufacture of cellulose from the pith of corn stalks. This material is used to fill the space between the inner and outer walls of warships. It is packed into place by great pressure, and when a cannon ball passes through such a wall and relieves the pressure at that point the compressed cellulose immediately expands and tightly closes the hole made by the passing ball, and thus instantly stops the leak. In manufacturing this cellulose the corn stalks first have the hard outer coating stripped off by machinery. These strips are then ground into a fine meal, called the new corn product, used for stock feed.

The Maryland station had in a previous test demonstrated that this corn stalk shell meal is a nutritious and valuable cattle feed, and in the tests reported in this bulletin it is compared with corn, oats and hay as a horse feed.

In all, nine different animals have been fed on rations with the new corn product as a substitute for hay, and the only difficulty that has been experienced in feeding it was with two horses who had other horses besides them to whom hay was being fed. These animals became sullen and refused their feed, but on their next door neighbors being placed on the same rations they were receiving, all went along smoothly. All of these horses had been somewhat accustomed to a "mixed feed," so this form of ration was not so new to them as it would be perhaps to many horses. The horse that relished this form of ration best at the start was one that had been accustomed to eating wet brewer's grains, which would confirm the observation that in feeding animals there is much in habit and custom. Those who would attempt to feed this material for the first time had probably better start in by feeding the same hay and grain which the horses had been eating as a "mixed feed" and then, after accustoming them to that, change to the other. From the fact that horses ate this feed continuously for five months, and relished it more at the end than at the beginning, seemed satisfied at all times, together with the testi-

mony of the weights, is sufficient data for concluding that the new corn product is a good food for horses, and can replace hay for that purpose.

Following is a summary of the results reached in these tests:

Timothy has proved to be less digestible by horses than by ruminants. (Animals that chew the cud.)

Grinding oats increased their digestibility. Corn meal was considerably more digestible than shelled corn.

Feeding concentrated food or grain with hay decreased the digestibility of the hay.

It is impossible to maintain horses on a grain ration alone; they must have a long forage.

Making a "mixed feed" of the grain and long forage is the best manner of feeding horses.

The new corn product was better digested by horses than timothy hay.

Grinding fodder to the condition of the new corn product, or of coarse bran, does not destroy its value as long forage.

The new corn product was successfully used as a substitute for hay in horse feeding.

The Cost of Refining.

[Special Correspondence.]

January 29, 1898.

Editor Louisiana Planter: Referring to your criticism of my communication, "Profits Made on Sugar Under the Present System of Distribution," published in THE PLANTER of the 22d inst., permit me to explain as to the net cost of refining, which I estimated at one-fourth of a cent per pound.

The output of the refineries generally is not 100 test; it is barely 99. It takes about 105 pounds of 96 test to make 100 pounds of 99. The value of this waste is fully covered by the one-fourth cent per pound. It is not, however, wasted, but is worked up into alcohol. Again, it is generally understood that refined sugar is adulterated with glucose, a magnificent adulterant, whether pulverized or used in fluid form, which is much cheaper than sugar. Herein is a gain sufficient to make it quite certain that the net cost of 96 test refined to 99 does not exceed one-fourth of a cent per pound as stated.

With local factories well distributed the other items of cost of distribution would be almost wholly dispensed with.

One and one-half cents per pound, equal to \$4.50 per barrel, is a rich melon for those who are able to share in it at the expense of consumers generally.

G. G. SMITH.

Our correspondent certainly discusses sugar refining without adequate knowledge of the business. The bulk of the sugar now sold is white granulated, testing within a minute fraction of 100. It is barely possible that 105 pounds of 96 test might give 100 pounds of 99, but it would not be first-class sugar. We may say incidentally that first-class white Louisiana granulated sugar, made on the plantations, will test 99.9.

The waste material may be worked into alcohol, but simply because it otherwise would have but little or no value. Our correspondent would be familiar with this if he had read of the many thousands of barrels of low grade molasses that have been thrown into the ditches of Louisiana for want of a market. Low grade sugar house syrups are even worse.

In regard to the adulteration of refined sugar with glucose, our correspondent is simply mistaken in regard to this, and judges by popular report from those who are unacquainted with the business. The adulteration of standard refined sugars with glucose is hardly possible in these days of easy chemical analysis and the ready detection of any such fraud. The extravagant estimate of 1½ cents per pound profit made by our correspondent thus falls to the ground, and while we have no doubt the sugar refiners take all they can get, they can't get any such margin as this.

Personal.

Mr. A. W. Norman managed the Hope last year and had for assistants in the boiling department those skillful brothers, Messrs. H. G. Hill and L. B. Hill. That Hope had a good crop and converted it into good sugar goes without saying.

Mr. C. W. Bocage, a prominent planter of Houma, was in the city on a visit a few days ago and registered at the Hotel Royal.

Mr. Adam Short, of Bellevue, accompanied by Miss Marion Short, was a recent guest of one of our hotels.

Mr. E. A. Sammons, chief engineer at the great Cinclore factory of Mr. Harry L. Laws, in West Baton Rouge parish, is one of the finest sugar-house and constructing engineers that we have ever had in Louisiana. Mr. Sammons designed the elegant and elaborate establishment that Cinclore has now been converted into, and its workings during the recent campaign testified to the care and accuracy with which the whole outfit was erected.

Mr. Daniel Thompson, of Calumet, Mrs. Thompson and Mr. W. J. Thompson were all guests of the St. Charles on Tuesday of last week. This was the first visit Mr. Thompson has paid to New Orleans for some time, owing to ill health, and his many town acquaintances greeted his advent among them again with much pleasure.

Mr. R. G. Comeaux, a prominent planter of Iberville parish, was in the city on a visit a few days ago, and registered at the Commercial Hotel.

Mr. Louis Bourgeois, of St. James parish, was registered at the Cosmopolitan on Monday of last week.

Hon. Andrew Price, of Lafourche, was registered at the St. Charles during the past week.

Handling Cane at the Carrier.

[A paper by MR. B. C. LEBLANC, read before the Louisiana Sugar Planters' Association, February 10, 1898.]

MR. PRESIDENT AND GENTLEMEN:

We have on other occasions appeared before your honorable association, and must beg to thank you for your kind invitation to relate our experience on the subject of "Handling Cane at the Carrier."

During our first attempt in the direction of devising some method of improvement in handling cane at the cane shed and feeding carriers, we fully realized the difficulties to be overcome and surmounted, therefore the objects we aimed to attain were:

First—Some device simple to operate, that would contain no complicated machinery likely to get out of order and requiring no expensive mechanic; in fact, a system that could be operated by the ordinary labor usually used at the cane shed.

Second—A system by which the carts would be unloaded as fast as they arrived at the cane shed, necessitating no delay and allowing the carts to return to the field promptly.

Third—Storing the cane at the shed in such a shape that it would always be under control irrespective of the state of the weather.

Fourth—A system by which every load of cane would be placed in the same position preparatory to be fed on the carrier, obviating any changes and avoiding any complications in the manner of feeding the carrier.

The trolley system contains mainly—an elevated trolley track of sufficient length and capacity to store any number of loads of cane. One or more unloading stations (for transferring the cane from the carts to the trolleys) connecting with the main trolley track by switches, and the supplementary side carrier used for the purpose of placing cane in a convenient position to be fed on the main carrier. This side carrier is placed on the side of and parallel to the main carrier. The method of operation is as follows: Two chains are placed in the cart before going to the field. In loading the carts the cane is placed on these chains and when loading is completed the chain is brought around and over the top of the cane and hooked. When the cart reaches the unloading or transfer station, two short chains hanging from the trolley are hooked to the chain in cart. The cart is then started, driving underneath and parallel to the trolley track, which at this point is built with a rise or upward incline; there is also a slight inclined platform located underneath this point upon which the cart travels. As the trolley attached to the cane travels up the incline it naturally lifts the load out of the cart. The inclined platform is to prevent the load leaving the cart before the trolley has reached the highest point and a straight part of the track. When it reaches this point the platform being inclined downward the cart passes down and out the side of the track.

At the point the cart passes out from under the track the bottom of the load of cane is higher than the top of the cart. The trolley with bundle of cane is then carried to the storage track or feeder, as desired. This

method of unloading the cart is practically automatic, and is accomplished in much less time than it takes to tell it. In fact, we see no reason why the carts can not be unloaded as fast as they are weighed.

The track going to the carrier feeder is built with a slight incline downward, just enough to allow the trolleys to move down by gravity, to a point directly over the side carrier or feeder, at which point a movable stop is located, then it forms an angle of about 60 degrees, letting the bundles down on the side carrier, and as this moves up carrying the cane, the trolley will continue down to lowest point of the track, when chains will be perfectly slack, admitting them to be easily unhooked. The track continues directly over and parallel with the side carrier, then to a switch and turntable, and from this it can be put on the empty storage track or return track to transfer station.

The former incline is for the purpose of storing six to ten trolleys, with loads or bundles of cane; the track tender fills up this incline, and while that amount of cane is being used at the feeder it gives him time to attend to other duties; for instance, storing cane on the storage track for night use, etc. As the cane is required on the feeder, the movable stop is raised by means of a lever, allowing one trolley to pass and deposit the bundle on the side carrier, the other trolleys will move down this incline until the next trolley strikes this stop, and as the side carrier moves up a sufficient distance to allow a small space between the two bundles, the next trolley is let down. The men at the carrier, in the meantime, have unhooked one side of the chain from the first bundle on the side next to the main carrier, the other side remaining hooked to the trolley and leaving cane in a position to be fed on main carrier. We allow the space of about twelve inches between the two bundles when placed on the side carrier, thus preventing them joining or interlocking one another, which, of course, would make it more difficult to feed.

The side carrier is drawn from the main carrier or the mill direct and is stopped and started by a friction clutch. After two or more loads have been placed on this carrier it is stopped until the first load is disposed of, then, started again to receive another load. In feeding cane on the carrier we use hooks. The side carrier is placed as close to the main carrier as it is possible to get it—usually at a distance of about twelve inches. When the chain is unhooked the cane in the bundle becomes disengaged and part of it will fall in the main carrier.

The side carrier is made to accommodate any number of loads. For mill of 400 ton capacity, two loads are ample, and for larger mills the carrier should be longer accordingly.

We find that four men will feed cane off this carrier at the rate of 300 tons for twenty-four hours.

The actual cost of handling cane by the trolley system, estimating the entire expense about the cane yard, including the unloading of carts, the care of the storage of cane, for

night use and the empty trolleys will average $3\frac{1}{2}$ cents per ton. While this has been accomplished at a less figure on some places others are a little higher, due altogether to the class of labor employed.

Handling Cane at the Carrier.

[A paper by MR. R. J. MCQUISTON, read before the Louisiana Sugar Planters' Association, February 10, 1898.]

MR. PRESIDENT AND GENTLEMEN:

It is with some delicacy that we accept your kind invitation through your secretary, Mr. Dykers, to prepare a paper on the subject of "Handling Cane at the Carrier," because it was not possible for us to inspect in operation many of the mechanical devices used during the last grinding season, or even to give our own the attention we should.

We presume, however, that we may proceed with the assurance that the meritorious devices other than our own will be amply represented at your meeting.

The sugar houses of Louisiana are so unlike in construction, capacity, appliances in operation and general surroundings that, in a great measure, each must be a "a law unto itself." What is the best method for handling cane at the carrier of one mill might not be the best for another, even of the same capacity.

However, for our purpose, we may consider our mills in a general way in three classes:

First—Those receiving all their cane in standard gauge railroad cars.

Second—Those receiving only in tram, or plantation cars, and

Third—Those receiving only in carts or wagons.

It is true that some of our mills receive cane by all of these methods at once, but they are the exception, and as indicated above existing conditions and surroundings must largely dictate the best method.

Considering the first class mentioned, it seems the most favorable method is to roll the entire load out of the car by means of a powerful hoist and long chain slings, the latter having been placed crosswise of the car before loading, as introduced at Gramercy, and later put in at Shadyside and other places. We are not prepared to state that this method will be greatly improved upon, although it would seem that the unloading process must leave the car load in a badly tangled mass; however, the system has the merit of unloading and releasing the cars quickly. There might be a question worthy of consideration, viz.: Whether it would not be more economical and satisfactory to detain the car a little longer and put the cane at the carrier just as it came from the cart, one cart load at a time.

As for second class of mills, where the cane arrives in tram cars, the only question is, How to get it out of the car and onto the carrier in the best possible manner. From what we know and have heard of the Bodley-Mallon Feeder, we feel justified in giving these gentlemen the floor on this subject, and passing to the third class of mills, those receiving their cane in carts and wagons. In this class we have to deal with mills, nearly if not quite all of which grind less than 500 tons of cane per

twenty-four hours. The greater number of mills in this State are in this class, and perhaps their greatest expense, for the labor accomplished, has been the feeding of the cane ground at night. This first attracted our attention in 1895, when, so far as we know, all the "night cane" was being carried to the carrier by hand.

We explained our theories at that time to quite a number of planters, but met with little or no encouragement, and for the time lost most of our enthusiasm in the matter.

We were told by one planter that "His Dagoes and women made the night feeding go like clock work and good enough for him."

Another said "He had a certain number of men on the place whom he had to feed, and they might as well do this work."

But, since that time, divers devices for doing this work have sprung up, mushroom-like, and most of them, we believe, are more economical than the "by-hand" method.

As most of you know, we erected three cane derricks last year for handling cane at the carrier. One at Bayside plantation, near Jeanerette, one at Linwood plantation, near Baldwin, and one at Ridgefield, Thibodaux. When these derricks were built the "sling" problem had not been entirely solved, and, to properly handle the one which finally proved to be best adapted to the work, we found it would be a great advantage to make minor but important changes in future construction. (It is difficult to cross a bridge before you get to it.)

So that for obvious reasons, results were not obtained that season that might have been, notwithstanding the fact that the machines did all we expected of them, and gave excellent satisfaction to those who had them. We trust the owners of the three cranes are at your meeting are willing to be interrogated by your members.

Handling Cane at the Carrier.

[A paper by MR. C. ROBERT CHURCHILL, read before the Louisiana Sugar Planters' Association, February 10, 1898.]

MR. PRESIDENT AND GENTLEMEN:

The question of feeding cane carriers by means of a derrick operated by steam was so thoroughly exploited and discussed at a meeting of your association just one year ago that I do not feel as if I could add anything further to it to-night.

I might say, however that, as Mr. McQuiston has just mentioned to you, we had three of these machines in operation during the past season, and, all things considered, they have proved a success, especially for night working, which is by far the most laborious and expensive portion of the operation of carrier feeding.

The derricks themselves turned out to be splendid pieces of mechanism, and their workings did every one who saw them, and who could appreciate first-class machinery, an immense amount of good. The easy and rapid manner in which they could be made to pick up and carry around great loads weighing over two tons was simply wonderful to behold. I have seen during the past season operatives raising, swinging around and running out a load all at one time with as much ease as if he was winding a clock.

Some few minor difficulties were expected and were of course met with, but these were overcome as soon as the operatives and hands became more skilful and versed in their respective duties. The question of slings was the one on which we anticipated the most difficulty, and was about the only one that we did have trouble with, but experience soon taught a way to overcome these obstacles just as it teaches us all other lessons in this great world of ours.

It is not necessary to-night to detain you with the details of the operation of lifting from carts and storing or feeding; suffice to say that all of these details have been thoroughly worked out and we are prepared to fully elucidate them to those interested in this method.

If the load was to be stored the yard man followed the load and by means of a long pole guided it into the position with a nicety. This whole operation took usually from one minute and nineteen seconds to two minutes, according to the distance the load had to go and the position in which it was to be placed.

If the load was to be fed to the carrier direct, then it was simply lifted from the cart and placed at once on the platform, an operation that took from one-half to a whole minute. It is, of course, understood that when the load was to be stored the driver of the wagon or cart took his load to the point nearest where it was to be placed. If it was to be fed to the carrier he would drive near to the platform.

The amount of cane left in the carts was generally only a very few stalks which the driver would throw into a pile on the carrier as he drove by. The few stalks that would drop from the loads while it was being swung around were picked up by a small boy, who also had other odds and ends to attend to.

We found that the bundles of cane could be piled on top of one another without the least difficulty, and it was not an unusual thing to see three rows piled one above another. These could be picked up at will and carried to the platform without the bundles becoming loose. When the loads were locked they were locked for keeps. I might say here in this connection that at Melodia plantation bundles were loaded onto barges and most always piled at least two tiers high. The barges were then towed up the bayou to Laurel Valley, where the loads were removed and tripped into cars. It was a very unusual thing for a load to be dropped in either of these operations notwithstanding it was kept up the entire season.

Our only trouble, as I have said, was with the slings, but as soon as the hands were taught how to place them and how to build up the loads in the carts or wagons these troubles practically ceased. This question has come up in every system now in operation and has given more or less trouble in every one of them. I will say, however, that so far as we are concerned it has been fully solved, and for the coming season no difficulties in that line are expected.

We have here a number of photographs of the different derricks in operation and we will be more than pleased to have you examine them carefully after the meeting. We will take pleasure in carefully explaining all of them.

The pictures show in a sort of vitascope manner all of the operations far better than any words can tell. There is only one thing that might show the workings more explicitly and that is a derrick itself, but we have hardly room enough here to exhibit one of them.

Handling Cane at the Carrier.

[A paper by MR. J. P. KEMPER, read before the Louisiana Sugar Planters' Association, February 10, 1898.]

MR. PRESIDENT AND GENTLEMEN:

The device which I am to describe this evening is one designed by me for the purpose of storing, and feeding upon the carrier, cane delivered at the mill in carts.

While a majority of the large factories deliver probably a greater percentage of their cane in cars, still they all deliver a great deal of cane in carts, and it is this cane which costs them excessively to handle.

It requires time to back and place these carts, besides being very hard on the team. If there is any quantity of cane to be stored for night feeding, it has to be dumped a long distance from the carrier, thus involving the great expense, so familiar to us all, of employing an enormous gang of hands to feed the carrier, and then get a poor feed during the last two hours of each watch.

There is another item, of no little consequence connected with the old system of feeding carriers, and that is the increasing scarcity of desirable labor.

Owing to the increased acreage, the negroes, even with the aid of the Italians, can not do it all, and we are obliged to employ professional tramps, who have not a thought above a full stomach and a place to sleep.

I mention these facts to show that we are being driven by the direst necessity to inventing means of cutting down labor expenses, in order that we might have employees enough to operate the sugar houses.

Improved machinery makes room for skilled labor, which is, strange to say, easier to procure than common labor, and much cheaper in the long run.

This is not the first device of the kind that I have designed. I think I was about the first man to slide cane down an incline. I got up a scheme, three or four years ago, of hoisting cane from carts and storing on an incline, just as many are doing now. I had never seen it done before. I tried it, but would not state positively that it had not been done.

It worked very satisfactorily, but when you considered the cost of slings, the extra time required to load cane in the carts (as every planter knows, it takes longer to load with slings than without), the lost time of the carts, waiting for the preceding cart to be unloaded; the occasional dropping of a load (which happens tolerably often, and must then be picked up by hand); I concluded that even though that was an advanced step, it was not advanced enough. The saving was not worth the extra expense incurred.

The device which I will describe this evening obviates all of these difficulties. Reference to this model will show how extremely

simple it is. It consists, you might say, of a table at right angles to the cane carrier.

The width of this table should be about fourteen feet. Running the full length of it, about six feet apart, and sunk beneath the surface in narrow grooves, are two endless sprocket chains, driven by a drum at the end next to the cane carrier. This drum may be operated by a separate engine (preferred) or by shafting from the mill. The sprocket chains being beneath the surface of the table, in the grooves, do not interfere with the cane dumped on the table; the chains slide along beneath the cane without disturbing it.

In order to feed the cane on to the carrier a load is dumped on the table. Immediately behind it a detached drag is placed, and fastened by two hooks into links of the sprocket chain beneath. The drum is set in motion, and the cane is dragged up to and onto the carrier. By means of a friction clutch, the rapidity of feeding the cane onto the carrier can be controlled at will.

The quantity of cane put on the carrier can be regulated by the man at the clutch, almost to a stalk. Where crushers are used, one man with a hook to pull the cane over to the opposite side of the carrier, is all that is needed.

At Glencoe, where I installed one last year, we have no crusher, and it was therefore necessary to have the cane distributed more uniformly. We fed only about 250 tons a day, and I had one man to straighten the cane, besides the one who pulled it over with the hook.

With this device, as with all others, the economy is in direct proportion to the quantity of cane fed. Practically, the same crew can feed 1000 tons per day as will feed 250 tons.

Of course, the amount of storage capacity depends upon the length of these tables. This length has a practical limit, because, if very long, the friction would become too much of a factor. I have fixed this limit at 300 feet. This will store about forty loads (a load takes up pretty nearly eight feet). To increase the storage, you simply increase the number of these tables.

The most satisfactory plan would be to plank the entire cane yard, and have these sprocket chains arranged in pairs along its surface (one pair about every 14 feet). The tables would not then require to be so long, the chains could consequently be a little lighter and the whole matter be more compact.

One very desirable feature of this device is the fact that it does not spoil your cane yard for use as a shed room during the cultivating season. On the contrary, it being floored is all the more desirable.

Handling Cane at the Carrier.

[A paper by Mr. J. W. BODLEY, read before the Louisiana Sugar Planters' Association, February 10, 1898.]

MR. PRESIDENT AND GENTLEMEN—Thanking you for the honor and the pleasure afforded me in the privilege of presenting to this association some thoughts upon the chosen topic of the evening, namely:

FEEDING THE CANE CARRIER,

I shall not consume your time nor weary your patience in any unnecessary, untimely or

tedious talk, about one or more mechanical devices intended to place cane on the carrier; leaving to the gentlemen who are patentees or promoters thereof their right and privilege of exploiting the merits of said appliances as they better than any one else can do. But I shall endeavor as best I may to draw a comparison between the time-honored, expensive and up-to-date method of feeding the carrier by hand and an invention that has reduced the cost of that work to a minimum.

From a time when the memory of man runneth not to the contrary, the feeding of canes into small and generally upright mills was accomplished by hand, one cane being fed at a time, and when in later years larger mills came into use the band or cane carrier became a necessary auxiliary on to which the canes were placed by hand, and this, possibly, antediluvian, up-to-date method pertains wherever mills are run and cane is grown. Until this last week, in the month of February, 1898, under the brilliant sunshine of the afternoon tide of the nineteenth century, might have been heard the monotonous sound "chopity clop, knock flop" of canes dropping one, two or more at a time, accompanied by the lurid execrations of the angry cane shed boss, exhorting the unspeakable sons of sunny Sicily to renewed energy, while the groaning, trembling, choking mill thundered its protests into the ears of the owner thereof.

'Tis written "uneasy lies the head that wears a crown," and uneasy lies the planter's head whose crown-wheel, or some other wheel, turnplate, housing or roller neck is in danger of augmenting the size of the junk account, and of diminishing the size of his bank account.

And some one will say "that is a gruesome picture." May I ask, is the picture overdrawn? Will not the experience of many planters in this State, if not in this presence, verify the statement that I have made? Yea, verily.

But there is a silver lining to the cloud, and a brighter day at hand. A number of those belated planters have proclaimed to the world in general, and to myself in particular: "Let others do as they may, but as for me and my sugar house, we have stopped short, never to go again, and relegated to the shades of innocuous desuetude, or to the dismal depths where the late lamented Mr. Maginty has forever gone, the last attempt to feed our mills by hand, and from now, henceforth, for all time, we will benefit ourselves, our heirs and assigns by installing a Bodley-Mallon Cane Carrier Feeder.

This brings us right down to the bones of our subject for dissection, figures! And figures are sometimes very dry bones, but in this instance the dry bones live, move and prove that cane has been, can and will be placed on the carrier with a feeder for one cent or less per ton. Some say 8-10 of a cent, others $\frac{1}{2}$ a cent, and one man says $\frac{1}{3}$ of a cent. But that is figuring too near the ragged edge of zero for safety. If I might venture to voice the predictions of some thoughtful observers, I will say that the time will come before many years when the number of mills grinding from 500 to 1500 tons of cane per day will be in excess of those grinding less than

500 per day. That, with increased facilities, railroad and better water transportation, the trend is more and more toward larger mills and central factories, and that the bulk of the sugar cane will be transported by rail, and where cane is boated by water, it will be transferred into cars, and from cars on to the carrier by machinery.

Therefore it is well, in view of these facts, that we should govern ourselves accordingly, and prepare for the inevitable, namely, milling of larger tonnage of cane, and taking 1000 tons of cane as a basis of comparison, we find that to transport 1000 tons of cane from the ground would require the labor of fifty men, and as one planter expressed it, "fifty mighty good men," at an expense of \$150 per day, or 15 cents per ton (which is a low estimate), some planters paying for the moving of a less quantity of cane, 17 and 18 cents, and even 20 cents per ton, and the larger the quantity of cane and the greater distance it has to be ported, the cost of the labor per ton would amount up rapidly.

It is a reasonable expectation that an expensive mill grinding 1000 tons of cane per day, would run, say, seventy days, requiring \$10,500 at \$150 per day, or 15 cents per ton, to feed the carrier by hand.

In this estimate is not included the expense of housing the laborers and their families and of labor agents, railroad fares, etc., stoppage of the mill for want of cane—a very heavy loss that might be avoided if those laborers were in the field cutting cane for the mill. Four watchmen of one man each at 75 cents per watch, for seventy days, costs \$3 per day, or \$210 for seventy days' grinding of 70,000 tons of cane transferred with a feeder, as against \$10,500 costs of feeding the same amount of cane by hand—a difference in one year in favor of the feeder of \$10,290. To which might be added 3 cents a ton, or \$3000, where the cost of moving the cane is 18 instead of 15 cents per ton, as before stated.

But some one says: "What about the cost of lowering the car sides and placing of the cars?" This item might properly be charged in the transportation account, but admitting that charge against the feeder, we calculate the cost of two car shifters for 12-foot cars at 60 cents each, per watch, four watches, \$4.80 per day, or \$336 for seventy days' grinding, leaving a balance in favor of the feeder of \$9974; and again deducting for one extra man, \$168, where 16-foot cars are used, still leaves a balance of \$9806 in favor of the feeder—feeding carrier at 1 cent a ton, as against 15 to 18 cents per ton.

But why have you not included the cost of the hands spreading the cane? Because none are employed for that work—the friction clutches of feeder being so sensitive to the movement of the levers hold any bunches of cane liable to fall until the surplus is carried toward the mill, and consequently a uniform feed is secured. Besides which that part of the carrier adjacent to feeder is lowered and the greater fall causes the canes to spread themselves.

A planter who watched the 1000-ton feed in

[CONTINUED ON PAGE 111.]

FEBRUARY 12.

WEEKLY MARKET REPORT.

1898.

SUGAR.	February 5.	February 7.	February 8.	February 9.	February 10.	February 11.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	2 1/2 @ 2 3/4	Quiet
Strict Prime	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	2 1/4 @ 2 3/4	
Prime	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	2 1/4 @ 2 3/4	
Fully Fair	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	2 1/4 @ 2 3/4	
Good Fair	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	2 1/4 @ 2 3/4	
Fair	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	3 1/4 @ 3 3/4	2 1/4 @ 2 3/4	
Good Common	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 2 3/4	
Common	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 3	2 1/4 @ 2 3/4	
Inferior	2 1/4 @ 2 1/2	2 1/4 @ 2 1/2	2 1/4 @ 2 1/2	2 1/4 @ 2 1/2	2 1/4 @ 2 1/2	2 1/4 @ 2 1/2	2 1/4 @ 2 3/4	
Centrifugal.								
Plant'n Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/4 @ 4	Very Strong.
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/4 @ —	
Choice White	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	— @ —	
Off White	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	— @ —	
Grey White	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	— @ —	
Choice Yellow	4 1/4 @ —	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	3 1/4 @ —	
Prime Yellow	4 1/4 @ —	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	4 1/4 @ 4 3/4	3 1/4 @ —	
Good Yellow	3 1/4 @ 4 1/2	3 1/4 @ 4 1/2	3 1/4 @ 4 1/2	3 1/4 @ 4 1/2	3 1/4 @ 4 1/2	3 1/4 @ 4 1/2	3 1/4 @ 3 3/4	
Seconds	2 1/4 @ 3 3/4	2 1/4 @ 3 3/4	2 1/4 @ 3 3/4	2 1/4 @ 3 3/4	2 1/4 @ 3 3/4	2 1/4 @ 3 3/4	2 1/4 @ 3 3/4	
MOLASSES.								
Open Kettle.								
Fancy	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ 27	— @ —	Strong.
Choice	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	25 @ 26	— @ 18	
Strict Prime	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	22 @ 23	16 @ 17	
Good Prime	— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	— @ 20	14 @ 15	
Prime	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 13	
Good Fair	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 17	— @ 12	
Fair	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 16	— @ 11	
Good Common	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 15	— @ 10	
Common	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 9	
Inferior	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 8	
Centrifugal.								
Fancy	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Strong.
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ 10	
Strict Prime	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	— @ 9	
Good Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 8	
Prime	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 7	
Good Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ —	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	15 @ 16	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Good demand.
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.10 @ —	
Standard A.	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	3.98 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	10s. 7 1/2 d.	10s. 7 1/2 d.	10s. 9 d.	10s. 9 d.	10s. 10 1/2 d.	10s. 10 1/2 d.	11s. 0 d.	Steady.
A. & G. Beet	9s. 1 1/2 d.	9s. 2 1/2 d.	9s. 2 1/2 d.	9s. 2 1/2 d.	9s. 8 d.	9s. 8 d.	9s. 1 1/2 d.	Quiet.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.58	Strong.
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.58	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.16	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.04	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	Feb. 2.....	Tons	202,662
At four ports of Great Britain to.....	Jan. 29.....	"	107,000
At Havana and Matanzas to.....	Feb. 2.....	"	42,500

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING FEB. 11, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	814	14,880	1,596
Sold.....	814	54,850	1,596

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO FEB. 11, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	18,177	1,188,882	166,978
Sold.....	18,177	1,104,014	166,978
Received same time last year....	27,883	1,094,964	192,628

FEBRUARY 5.

WEEKLY MARKET REPORT.

1898

RICE.	Feb. 5.	Feb. 7.	Feb. 8.	Feb. 9.	Feb. 10.	Feb. 11.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	1 50@4 25	1 50@4 25	1 50@4 25	1 50@4 25	1 50@4 25	1 50@4 00	2 00@4 25	Steady.
CLEAN, Fancy.....	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	
Choice.....	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	
Prime.....	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	
Good.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	Steady.
Fair.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	
Ordinary.....	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	
Common.....	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	— @ —	2 @2 $\frac{1}{2}$	
BRAN, $\frac{1}{2}$ ton.....	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	
POLISH, $\frac{1}{2}$ ton.....	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	16 00@17 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING FEB. 11, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received.....	10,490	—
Sold.....	8,865	8,506

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO FEB.
11, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	409,555	8,088
Last year.....	369,746	5,081

Sugar.

At the close of the week the sugar market was active and strong and the movement was brisk. Receipts were fairly good, but sales were greatly in excess of arrivals.

Molasses.

The market for open kettle molasses was strong at the end of the week, as was also the market for centrifugal goods.

Rice.

A firm tone prevailed in the rough rice market at the close of the week, and a fair amount of transactions were reported. Clean was steady, with a good demand.

Handling Cane at the Carrier.

[CONTINUED FROM PAGE 109.]

twenty-three hours to mill at plantation of Messrs. Dugas & LeBlanc, in the parish of Assumption, thought the feeder would not work so well where there was no crusher, but the even 600-ton feed, and the 300-ton feed, on to the two carriers of Messrs. Trosclair & Robichaux, Lafourche parish, declare the feeder a success, be the required feed great or small; the capacity of the feeder being limited only by the amount of cane that can be brought to it and carried away to the mill.

Will the feeder unload standard size railroad cars?

Yes, or any other size cars, from thirty-six feet down to six-foot cars on same track—with a third rail for the small cars, with the same feeder, sections of which are lowered into cars according to their length.

How about lowering the sides of large cars, which is objected to by the railroad authorities? No objection whatever, provided the stakes are placed in the pockets of cars in the regular way, in which case any form of hinged side to let down is allowable, but a very good plan is to raise the entire side one foot out of the

pocket with rope tackle attached to a crab turned by one man, and then push the car in reach of the feeder—the side remaining suspended until car is unloaded, and the side is then quickly replaced.

To unload a thirty-three foot car of cane by hand requires the labor of seven or more men at least sixty minutes; the feeder would do the same work in one-tenth of that time, if the mill would take the cane as rapidly as it could be unloaded.

Several horse-power only is required to operate the feeder, it being turned by a shaft preferably moved by a sprocket wheel bolted to end of upper roller shaft, from which a sprocket chain is run to shaft that operates the feeder, but an independent small engine or any other power could be utilized.

Regarding the wear and tear and cost of maintaining the feeder, that is as near a minimum as any machine that we can conceive of.

Replying to the question sometimes asked: "How can a planter use the feeder who has no railroad? In that case he should use enough cars for the night storage of cane—eight or ten would be sufficient for day work. Planters who have cane brought by tenants, or with their own carts and wagons, can transfer the loads onto a platform within reach of the feeder, by means of any one of the several transfers now used.

The feeders are erected, operated and tested at the factory in Staunton, Va., and can be shipped to any part of the world, knocked down, weight minimum car load, and can be readily set up by any ordinary mechanic over any cane carrier or at the outer end of same (carrier to be extended), whether there be a cane shed or not to attach it to.

There is but one objection that we have heard against the feeder, and I would apologize to our planter friends for referring to it, if it were not pertinent to the subject that we are considering, and that is that it knocks out manual labor. Well, that is true in one sense, and not true in another sense. The fact is self-evident that without labor-saving implements and devices, the days of sugar planting in Louisiana would have been numbered long ago, and consequently there could have been no employment for labor. But as the sugar

planters utilize improved machinery to cultivate more land they employ more labor, instead of displacing labor.

In conclusion it is eminently right and proper that I should give credit where credit is due, for it is owing to the efforts of one man, who, when others had grown discouraged and had given up further attempts to work out the problem, he with untiring energy persisted in pushing to success a machine that will and is now revolutionizing the feeding of the cane carrier. I scarcely need to mention the name of the inventor of the stubble digger, stubble shaver, and many other well-known and commonly used implements—Col. James Mallon, of New Orleans.

Sugar in London.

The tone of the raw market has been decidedly dull, but this is not unusual at this time of the year, and although the price of beet is lower almost daily now, the decline is so fractional that it does not amount to more than $1\frac{1}{2}$ d. to $2\frac{1}{4}$ d. per cwt. at the end of the week. As regards actual supplies of sugar, the effect of the mild winter and open navigation on the continent is seen in the imports of sugar to the United Kingdom since January 1, the figures showing a considerable increase both of raw and refined. It can not be denied, however, that the state of the market is much more healthy under such circumstances, and in addition an artificial rise in value, caused by temporary scarcity, is thereby avoided. Whether from dullness of trade, or expectations of larger weekly receipts of sugar in Cuba, the American markets have shown signs of weakness, notwithstanding a further steady reduction in stocks, which are smaller than those of last year. There has been very little demand here for cane sugars lately, either refining or grocery sorts, but holders have refrained from pressing them for sale, and as the weight available is by no means excessive values are steadily maintained. The imports of crystallized raws to London for the week ending 20th inst. amounted to 1931 tons, and for this year to 3427 tons, against 4167 tons in 1897.—*Produce Markets Review*, January 22.

W. B. Pearce, of New Iberia, was in the city on a visit a few days ago.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98

WANTED—SUGAR HOUSE ENGINEERS, chemists and sugar boilers; none but first-class and experienced men need apply. Address E. H. DYER & CO., 310 Byrne Block, Los Angeles, Cal. 2-9-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; the best of references. Address EXPERT, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2432 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2620 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT EN-gineer; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louisa street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La.

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address GOTTLIEB KOELLE, 1938 St. Louis street, city. 1-21-98

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBRE, Central, La. 1-20-98

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. McCracken Bros., Eola La. 1-20-98

WANTED—POSITION AS STORE OR BOOK-keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address MAX, P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR AS-sistant engineer; has had fourteen years' experience and can furnish first-class references. Address F. O. W., Lareauville P. O., La. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-18-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. GEO. H. DOUGLASS, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTA-tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address P. O. BOX 422, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. Franklin street, city. 1-13-98

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address COMPETENT, Box 649, New Orleans. 12-21-97

WANTED—POSITION AS ASSISTANT MAN-ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address E. O. W., Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN-Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address A. B., 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address C. LAURENT, Whitecastle, La. 12-28-97

WANTED—ENERGETIC AND STRICTLY SO-ber young man wants position as manager of small store on plantation, on salary or commission; gilt-edge reference as to ability and character. Address B. B., 1928 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address W. T., care Daily Journal, Plaquemine, La. 12-23-97

WANTED—POSITION AS CLERK IN A COUN-try or plantation store; not afraid of work. Address CLERK, Postoffice Box 69, New Orleans, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt edge references. Address B. B., 1928 Bayou Road, New Orleans. 12-17-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address R. V. H., 129 Decatur street, New Orleans. 12-16-97

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898. At living salary. Address BOB, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and Rapides parishes and some New Orleans merchants. Address SMITH, care this office. 12-16-97

WANTED—A FIRST-CLASS PAINTER, AC-customed to country and plantation work, would like to obtain work either by the day or contract. Address BRUNO, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address E. C. MARSHALL, Cheneyville, La. 12-7-97

WANTED—By a young lady of several years' ex-perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address X Y Z, care PLANTER. 12-3-97

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address B, care of The Chief, Donaldsonville, La. 12-3-97

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address J. E. W. DAVIS, McCall, La. 12-4-97

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address HUSTLER, 1100 Dante street, New Orleans, La. 12-8-97

WANTED—A YOUNG FRENCHMAN, 24 years of age, desires a position in a sugar house or mechanical construction shops. Has had experience as mechanic in France and in the most important sugar houses in Cuba. Address M. N., this office. 10-22-97

WANTED—A POSITION ON A PLANTATION as centrifugal man, by a first-class sugar drier. Address H. A. WHALEY, care of Wm. Johnson, 7000 Magazine street, New Orleans. 9-23-97

WANTED—HOSTLER FOR MEDWAY PLAN-tation, Bayou Sale, St. Mary parish. Apply with reference to D. J. KER, North Bend Plantation, Foster P. O., La.

WANTED—A POSITION; A HANDY MAN ON a plantation; can furnish recommendation. Address WM. J. TONGLET, 413 Royal street, New Orleans, La. 11-8-97

WANTED—A POSITION AS SUGAR WEIGHER or clerk or fireman; can fill any with competency. Address A. J. CASTIN, 1529 Mandeville street, city. 10-20-97

WANTED—YOUNG MAN OF 26, SOBER AND industrious, wants a position as assistant sugar boiler or chemist of some sugar factory or estate in Cuba, Hawaii or Mexico; have had fourteen years of practical experience in manufacture of sugar. Address SUGAR, Waggaman P. O., Jefferson Parish, La. 11-7-97

WANTED—BY A RELIABLE MAN OF EXPE-rience, a position as sugar maker; well up in the management of central factories. Address SUGAR MAKER, No. 1716 Baronne street, New Orleans. 10-14-97

WANTED—A POSITION AS SUGAR DRIER by a competent man, who can furnish good references. Address ALPHONSE CARRILOUX, Detention Camp, Waggaman, La.

WANTED—A POSITION AS A SUGAR MAKER; willing to do his own polarization; has had eighteen years' experience; can furnish reference. Address ALFRED ROUSSEAU, this office. 11-4-97

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

NEW ORLEANS, LA., FEBRUARY 19, 1898.

No. 8.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

OFFICIAL ORGAN OF THE

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Acension Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.*

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ical, Political and Commercial.

EDITORIAL CORPS:

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Cane Planting.

Reports from the country indicate that the important operation of planting cane has progressed during the week under conditions which were, on the whole, favorable, though enough rain fell at the beginning and at the end of the period under review to give some cause for complaint. On Thursday a particularly good opportunity was given to those who like to rail at the vagaries of the weather, a heavy soaking rain falling all day and bringing field work to a complete standstill. On some places, however, planting is finished, and the general verdict seems to be that seed cane is all right, and more of the same sort with which to plant additional areas would be gladly welcomed.

Burmah Rice.

Our Calcutta correspondent, under date of January 20, reports to us on the prospects of the Burmah rice crop as follows:

Summary of reports on the rice crop, prospects on the 31st December, 1897 in the fourteen chief rice-producing districts of lower Burmah. The total area under paddy cultivation is now reported as 5,528,837 acres or 4,469 acres more than the estimate given last month and 304,775 acres more than the actuals of last year. Reaping is now approaching completion. There are no material changes from last month. It is now estimated that there will be available for export 1,900,000 tons of cargo rice, equivalent to 32,203,400 cwt. of cleaned rice.

From these data our readers may gain some idea of the enormous production of rice in the East Indies. We here find an estimate of rice available for export to the extent of 1,900,000 long tons, and equivalent to 40,000,000 bags of Louisiana rough rice. The East Indies would seem to be able to flood the world with rice and yet they must keep immense supplies for their rice consumption, as it is their chief food.

Hawaiian Sugar.

In another column we reprint from the *Orange Judd Farmer* a graphic state-

ment of the extent to which the Hawaiian Islands will supply us with sugar. One-half the area of the United States may be fully covered now, so far as its sugar consumption is concerned, by the sugar Hawaii sent to us in 1897. It is useless to say this is a sparsely settled territory. Its population is large, big enough to send two Senators from each State, and these people are large consumers of sugar, but the 250,000 short tons sent to us by Hawaii is enough to feed them all to the average quantity consumed in the United States. We hope our Hawaiian annexationists will study this matter. No wonder the beet factories stand paralyzed by the prospective, and, in fact, present, invasion of their territory by the Hawaiian, Kanaka, Chino-Japanese indentured, or semi-slave labor produced sugar.

Does Pumping Masse Cuite Interfere with Crystallization.

[Special Correspondence.]

HAWAII, H. I. January 25, 1898.

Editor Louisiana Planter: In your edition of the first inst., in your reference to reports to Hawaiian sugar planters you say that you think that the cause of the No. 4 sugar foaming in very small grains is not due to its being pumped from the pan to the large tank, but is more likely due to the small grains in the molasses from which it was boiled, not having been melted out. Since reporting on this, I have raised the pan so that masse cuite will flow by gravity into the tank. If I find that our troubles have been overcome through this change I will drop you a line and let you know. Our mills will be started up shortly.

Before deciding upon the raising of the pan, I watched the boiling of the molasses very closely, one experiment being to let a part of a strike into cars without its passing through the pumps. The cars formed good sugar, and the same masse cuite after being pumped formed grain too fine to drop. This same sugar taken from the tank, remelted and re-boiled, also made sugar of a good grain.

As the sugar was in the molasses some cause prevented its graining properly in our steel tank. Thinking it might be caused through leak transmitted from one compartment to the adjoining, I distributed the molasses in compartments far enough apart to overcome the

trouble from this cause, but the fine grain remained. A former experience satisfied me that the pumping did affect the masse cuite.

Four or five years ago, and for some years preceding, we used a large cement tank and cistern in which to store No. 4 sugar. This was boiled in a horizontal pan and drained to the cistern. About four years ago the two-inch wrought iron tubes gave out, and I discontinued the use of the pan, boiling in a common pan, and pumping the molasses to the cement cistern. When I wanted to dry this, I found the grain too fine to centrifugal. I experimented on it in every way I could think of—in cars, etc., but finally had to boil a lot of it over, and let it into cars. Of course, I thought of everything that would have an effect on our molasses, better extraction, etc., but now, from later experience, I feel satisfied that the pumping caused most of our troubles. I don't know in what way, unless in sputtering from discharge pipe, it became saturated with air, which remained in the molasses—and prevented the grains from forming to the required size. The above is my experience, and from it I hope to overcome the trouble by the raising of our pan.

Should it be O. K. will let you know. I have written this because you had expressed an opinion, and I saw that you were interested.

Now, while I am at it, I would like to call your attention to another subject, viz: To the No. 4 molasses that caught on fire from spontaneous combustion at the Hamakua mill. This was remarked on by you, I believe. It is a very unusual occurrence, and I have thought that the clariphos that was used at that mill last year might in some way be responsible for the trouble. There is but a thin solution of phosphoric acid used, but the water may be evaporated, leaving the acid in an active state. The clariphos is received with 48 per cent. phosphoric acid and is diluted 1 to 10 per cent. and two gallons of solution used to 1000 gallons of juice. As I said, the water may evaporate, leaving the acid to ignite the molasses. I have not heard this stated as a supposed cause, and am not chemist enough to know what the result might be, and as they have analyzed the ashes, etc., at the experiment station at Honolulu, I suppose Dr. Maxwell would have thought of the cause, had this been it. I think it might be a very important factor.

OCCIDENTAL.

Our correspondent certainly makes out an excellent case for his hypothesis as to the indifferent crystallization of masse cuite pumped into tanks as compared with that sent there by gravity. Forty years ago sugar refining was carried on practically without pumps. The packages of raw sugar were hoisted to the top of the tall sugar houses, there melted, clarified, filtered, boiled to grain and centrifuged, each process on a floor below the previous one, and all this to prevent pumping of sugar in any shape, thin solutions or thick.

Since then this has all been changed. The sugars are melted on the ground floor and the solutions pumped to the top of the house. Pumps are used to pump the material at various stages and the old horror of pumping sugar solutions seems to have passed away entirely. Sugar refineries are still built very tall, both to facilitate gravity filtration through bone-black, but it has been said by some English refineries that high buildings were no longer necessary and that one of the best new English sugar refineries was a series of low buildings.

The old idea of injury from pumping was based upon the making of wrought iron or upon candy manufacture. Any crystalline matter that can be worked becomes thus laminated or fibrous, but the material must have sufficient crystalline consistence to be liable to this injury or change by working and it has long been found that thin sugar solutions were not injured by pumping and it has been thought that masse cuite was not injured by stirring in a mixer and perhaps not even by pumping. We don't know that such pumps are now used by the American Sugar Refining Company, but they have been within a few years.

Again, the present tendency among sugar manufacturers is toward *crystallization in motion* of course for all high grade sugars, but now for the low grades, the refractory sugars that we have always thought would only crystallize at rest, it is found that they will crystallize equally well *in motion* and in one-tenth the time.

All this would seem to show a good, slow-moving Magma pump will not injure the crystallizing capacity of low grade sugars, but our correspondent's data is so convincing that we now tend to adopt his conclusions, that pumping of masse cuite is injurious, and especially so if the changes he has made confirm the accuracy of his judgment by the subsequent better results thus obtained.

We may say in closing that the chief and constant cause of smeary strikes of low grade sugar is the non-melting of the small grains that escape with the molasses through the centrifugal screens. If these be present, they are so numerous as to become the nuclei for millions of small grains that won't work, while, if melted out, the regular grain will

come in due course, and the masse cuite work well.

Hawaiian Ideas on Cane Mills.

[Special Correspondence.]

Editor Louisiana Planter: The Mirklees, Tait and Yaryan Company of Scotland is to the front with some of the finest catalogues ever seen here. The number and the variety of their mills are something immense and vary in sizes from a 10x12-inch to 48x84-inch. The roller, of 48 inches in diameter and 84 inches long are said to be the largest in the world. The changes in construction are many and in in most instances in the right direction. For instance, in their latest design of three-roller mill the top roller is flanged instead of the side roller, which I consider a decided improvement, as it does away with the "chocks" that are usually fixed to the ends of the turnplate or trash bar, which are often a nuisance. The side cap bolts, too, now pass right across the cheek pieces, the same as in American-made mills, and the side rollers are adjusted by wedges having bolts to draw them up, or to let them down as the case may be, and they are more convenient than the old method. Another new departure is to place the cap bolts of the top roller on the outside of the axles of the side rollers instead of on the inside, as is the usual practice. This change is another move in the right direction, because it permits the turnplate to be much narrower and brings the rollers nearer together, and consequently reduces the turnplate friction, and at the same time gives better extraction.

They have also made an improvement in the turnplate, or what they call the new "rocker" trash turner. They have also a patent automatic pressure regulator called the "Toggle Gear," which is said to be superior to the hydraulic pressure regulator. They have also water circulating connection pipes for cooling the bearing. These may be considered small affairs, but I can say from experience that they are of great assistance in keeping the bearing cool, and as the water circulates in the recesses of the brass without going into the bearing, it is a decided improvement.

This firm also gives some useful data in regard to extraction, and although not intended to be exact, it gives a good idea of the different values of the various machines. For instance, the three-roll mill extracts 64 per cent. of the weight of the cane, and loses in the trash 27 per cent. The three-roll mill, followed by a two-roll, extracts 75 per cent., and loses in trash 19.59 per cent. The two three-roll mills followed by a two-roll mill extracts 80 per cent., and the three-roll mill extracts 82 per cent. These figures are admitted to be rather below than above the usual practice, but nevertheless they give a good idea of the advantage of improvement.

The gain or value of the extra sugar obtained by double crushing on a crop of 25,000 tons of cane is estimated at \$12,775, while the gain of a nine-roller plant is £5882 or \$29,410. These favorable results will, I think, open the eyes of some of the planters to the advantage of double and triple crushing. It may also be

interesting to know that they recommend using the thin juice from the last mill for maceration, which is already in practice here. They also give some useful information in regard to steam boilers, and state that after an experience of fifty years they find nothing better or more economical than the multi-tubular boiler.

GEO. OSBORNE.

Kukatau, Hawaii, H. I., January 20, 1898.

Our correspondent enthuses a little over these Scotch cane mills, but simply because of his lack of familiarity with our American cane mills. The United States is now leading the world in cane mill manufacture, and almost every improvement noted by him as now introduced into the new Scotch mills has been in use here for from ten to twenty years. The canny Scotch are a little slow, but they recognize a good thing in the end, and finally adopt it, even if it be American.

To particularize: the 48-inch by 84-inch mill referred to stands surpassed by the 60-inch mill built ten years ago by Leeds & Co. for the Caffery factory of St. Mary parish, La. That mill has seven rollers grouped in one 3-roller mill and two 2-roller mills. It has been found that the 60-inch mill does not give as satisfactory results as was expected. The diameter is too large and the expressed juice can not escape from the bagasse and goes through the mill with it, to some extent. A reaction is taking place here as to cane mill diameters, and 48 inches named by the Scotchmen is too large to do the best work. Louisiana practice now indicates 34 inches as about the best diameter for cane mill work, the roller lengths to be determined by the work required.

The flanging of the top roller instead of flanging the bottom two, to which our correspondent refers as a further improvement, has long been done in Louisiana—we should say for ten years, any way.

The passing of the side cap bolts across the housing or check pieces or end frames, as they are variously called, has been the practice here for twenty years, and was first done at the Johnson Iron Works, now the Whitney Iron Works, by its manager, Mr. Churchill, after a discussion of the merits of the plan by Mr. Churchill with the writer. These housings are called French housings here to this day, having been

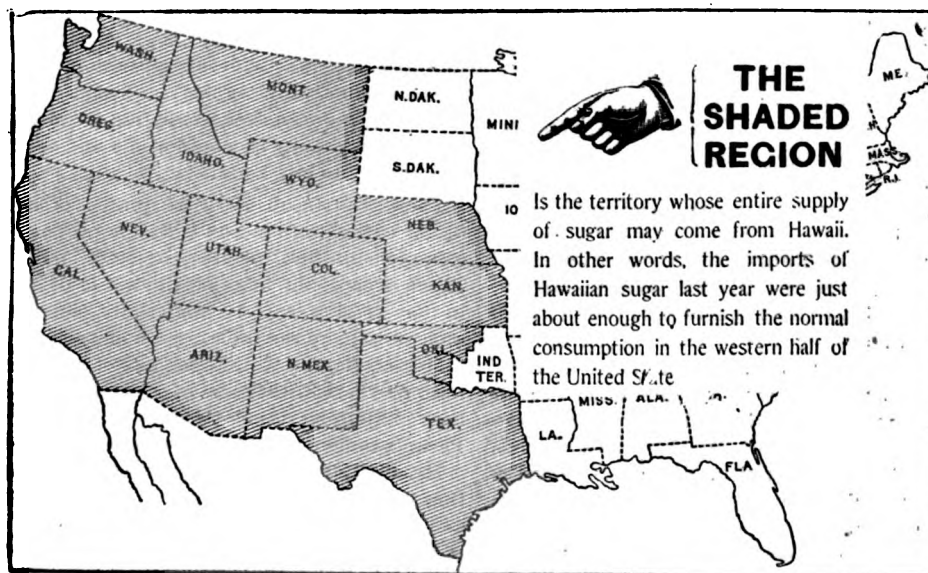
adopted from the invention of Mr. Rousselot, of Martinique.

The placing of the top cap bolts, or king bolts, as we often call them, outside the journals of the bottom rollers may be a new departure, although cane mills with diagonal bolts have been offered for years, but never secured the confidence of the sugar engineering world. Short tee head bolts were used to secure the top cap more than twenty years ago by the West Point Iron Works, New York, in a cane mill made for Cuba. The tee head took the top roller strain in the upper part of the housing, but the plan never came into extended use, so far as we know. More recently the king bolts have been drawn closer together at the bottom than at the top. For instance, in a mill where the bolts were twenty inches apart at the top from centre to centre, they might be drawn to but fifteen inches at the bottom washer, thus permitting the closer approach of the bottom roller to each other and the use of a narrower turnplate.

Our correspondent must know that the so-called new *Vocher trash turner* is simply an infringement on Mr. Flower's patent turnplate in use in the famous 9-roller Cora mill, one of which has been in use in the Sandwich Islands for a number of years. As to the patent automatic pressure regulator called the toggle gear, it is certainly an infringement on Mr. Brulard's patent device of that kind, exploited here years ago.

One thing that has held the West Indies back, as much as they now show themselves to be, has been the slowness of British sugar machinery manufacturers to awaken to the needs of the day and produce modern and effective types. It is somewhat amusing, now that they have been somewhat aroused by finding Germany invading their own markets, to find them adopting American ideas and claiming them as their own, even if bad, as is the 48-inch cane mill.

Mr. R. R. Barrow, a prominent sugar planter and business man of Houma, was a recent visitor to New Orleans. He was accompanied by Mrs. Barrow.



From Orange Judd Farmer of Chicago, for Feb 5, 1898, (western edition American Agriculturist.)

Hawaiian Sugar Supplies Half the United States.

Over 500,000,000 pounds of sugar were imported in the United States from the Sandwich Islands during 1897. This was enough to supply the 9,000,000 people who live in that half of the country west of the Missouri river, as indicated in the above map. The Hawaiian sugar was enough to supply the great Central States of Wisconsin, Illinois, Indiana and Michigan for one year, or Ohio and Pennsylvania, or nearly enough for New York and New England. It was six times as much as all the beet sugar produced in the United States. In most of the Western States, this Hawaiian sugar can undersell domestic by one cent per pound—the fact that now makes capital hesitate to embark in our otherwise promising beet sugar industry.

Hawaii is now sending the United States about twenty times as much sugar as she did prior to the reciprocity treaty of 1876. Yet it was asserted then as now, that she had reached her limit of sugar production. The truth is, Hawaiian exports of sugar to the United States have increased 68 per cent. in the past three years—from 306,000,000 pounds in 1894 to 502,000,000 pounds last year.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: We were favored with beautiful weather during the past week up to Thursday morning, when a driving rain set in and continued with varying volume throughout the day. The precipitation has been quite heavy and the prospect at this writing is that there will be more of the same before the episode of dampness is closed.

The cane-planting campaign was proceeding with great vigor when interrupted by the wet spell, and reports of its progress were almost universally favorable, the main drawback being shortness of the quantity of seed. It is reported that Messrs. Lebermuth & Israel are confronted with a deficit of this kind on their Salsburg plantation in St. James, and will be fifty acres short of the area they had intended to plant.

On Messrs. Bernard & Brother's Belle Terre place, Assumption, the supply and demand promise to be nip and tuck, with nothing to brag of one way or the other. Planting would have been finished at Belle Terre this week but for Thursday's rain.

The only complaint with reference to the quality of the seed that has reached your correspondent pertains to its sprouting, and as an assistant manager remarked a day or two ago, "We've got used to that." If no very severe weather occurs before the end of the winter season, this tendency to sprout will scarcely be regarded as a serious drawback.

There is little uniformity as to the stage of work on the plantations of this parish and section, some having finished planting, others being nearly through and still others having a large proportion of their cane still transplanted.

Messrs. J. L. Rolling and C. S. McFarland recently sold their Little St. Rose plantation, in St. James, to Mr. Prudent Keller for \$27,500, and Mr. Rolling has purchased Mr. Keller's half interest in the Pike's Peak place, same parish, on the basis of a valuation of \$70,000 for the whole plantation. Pike's Peak is now owned by Messrs. J. D. Gaskins and J. L. Rolling, under the firm name of Gaskins & Rolling. The new levee at Pike's Peak, concerning which some uneasiness was felt owing to its unfinished state and the rapidly rising river, has been completed and is now regarded safe. It is to be fascined to protect it from wave wash.

The fair for the benefit of Burnside Chapel and the attendant shoot, which was one of the principal features of the entertainment, came off according to appointment last Saturday, and proved most enjoyable and successful in every particular. The attendance was large, the arrangements perfect and everybody present had a royal good time. The financial proceeds aggregated \$287.20, a result that met the most sanguine expectations. An error was made in this correspondence last week in designating the new house of worship at Burnside as an Episcopal chapel, the fact being that it is non-sectarian, or as Dr. Miles expresses it, "a 16 to 1, free for all chapel." The initial

services will be held there the coming Sunday, under the direction of Rev. Beverly Warner, of New Orleans.

L. E. BENTLEY.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather since last report has been on the whole favorable. There was a heavy rain Friday night, but since then the weather has been lovely and of a nature to dry things up, so that to-day everything is running along in fine style. Quite a number have finished planting and others will soon follow. Now and then we hear of a planter striking bad seed, but generally it is good and the estimate of 15 per cent. increase in the acreage over last year will be reached. The work of breaking out old stubbles for corn planting has begun. We notice a number buying feed from the West and it is unfortunate, for with our soil and facilities, enough and more could be raised profitably at home.

We heard one planter remark this week that the meetings of the Louisiana Planters' Association were well worth attending in order to learn what new things pertaining to sugar cane culture and manufacture were being inaugurated. Frequently many important things are brought into use right under our very noses without our knowledge, but very few with any merits escape the attention of the Louisiana Planters' Association. Iberville was a little better represented at the last meeting than usual, and the able paper of Mr. B. C. LeBlanc deserves careful perusal of every sugar manufacturer in the South, but there is plenty of room in the association for more of our planters, many of whom would add weight and dignity to any body.

The Bayou Jacob Railroad project is again up for consideration, and with the proper encouragement the Cinclear people will build it. There is no doubt but that the value of lands in that section will be materially enhanced, and we hope to see the railroad materialize.

Messrs. Barrow & LeBlanc have leased for a term of years the lands of Mrs. Odillon Labauve adjoining their Pecan plantation, and Pecan's tonnage will be materially increased.

Mr. W. J. Terry has finished planting, getting in eighty acres, planted three and a lap, and just now he is helping Mr. Simon LeBlanc to break up rice land on the Virginia plantation.

Mr. Andrew H. Gay, Jr., son of Hon. Andrew H. Gay of this parish, and Miss Irene Cannon, daughter of Mr. Fenelon Cannon, of Galveston, Tex., will be married this week at the latter place. We learn that Mr. and Mrs. Gay will abide in the Gay homestead on the St. Louis plantation.

We have two sales of plantations to chronicle since the last report, and while others may poke fun at us, claiming that everything is for sale up this way, the fact remains that there are many willing and anxious to invest in Iberville, and particularly in her sugar lands. Mr. Edward Desobry sold his Irion plantation, adjoining Plaquemine on its lower side, to Mrs. M. Minvielle and Mr. A. A. Robert, of St. James, for \$18,000. Irion has an area

of about 280 acres. Following Irion comes the sale of the Texas plantation from Messrs. Branch M. King and John P. Snellings to Mr. Lusignan N. Folse, of St. James, for \$57,000. Texas is a fine place, and is in the midst of one of the most prosperous sections of the State.

IBERVILLE.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Unexpectedly the meteorological conditions which were encountered the latter part of last week were extremely unpropitious for those who were engaged in cane planting. Rarely within the past quarter of a century has such a thunderstorm and tropical downpour of rain been witnessed in the month of February, in this section of the parish at least. The precipitation commenced between 1 and 2 o'clock, and at daylight fields were partially submerged, and the lands put in such miserable plight that even at present writing (Wednesday) the soil is too moist to enable planters to do reasonably good work in their fields. All are anxious to hasten the plantings as rapidly as possible, owing to the sprouted condition of the seed.

Where the canes were long and the tonnage approximated twenty per acre the seed is not as perfect as might be desired, going to prove that a smaller tonnage per acre will insure a better quality than where above sixteen tons are windrowed. The quality of soundness being the first essential sought, it should not be at any time sacrificed to quantity.

In some localities the seed cane is coming up to expectations, where seasonable rains were had during the past summer; but in some localities there may be a shortage, due to a want of adequate moisture during the growing season; yet, as an entirety, the acreage planted will probably be up to an average.

From the number of auction sales of horses during the past four months, and the number of mules brought into the parish in the same length of time, this section is now well supplied with animals—such purchases going to show that there is a renewal of confidence in the future of sugar.

Wednesday of last week was clear and cool; Thursday, cloudy and threatening, and Friday evening a flood of rain; Saturday, cloudy; Sunday was fair; Monday, cloudy; Tuesday, fine, and Wednesday cool.

The official weekly weather report from Schriever is as follows:

	Temperature.	Rainfall.	Sunshine
February	7.65.0	32.0	.....
"	8.71.0	34.4	.....
"	9.79.8	34.5	.....
"	10.78.0	54.5	.....
"	11.81.6	59.7	2.08
"	12.74.0	48.8	.03
"	13.74.2	46.2	.....
	74.8	44.3	2.11

TERREBONNE.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: Planting and field work, which was progressing so favorably during the first days of the past week

was brought to a sudden termination at 4 o'clock, on the afternoon of the 10th inst., by a heavy thunder and rain storm, lasting through the night to the morning of the 11th, when the clouds began to break away from the north, portending fair and better weather. The earth being so filled with water precluded the possibility of all further attempt at ploughing and planting until the morning of the 14th, by which date all fields having good drainage had sufficiently drained down from the surface to admit the ploughmen to again hitch their teams to plough; but let it be understood that only where good drainage is found has the plow started to turn the soil, showing conclusively the advantage there is to be had in clear-cut open ditches or tile-drained lands.

Up to the present time THE PLANTER'S scribe has received no notice from any one of the many cane growers in this nor from adjoining parishes of injured seed cane. To the contrary, it seems that seed has kept in an excellent state of preservation. The only objection, so far, put forward has been, in some instances, that seed was thought to be sprouting too freely.

But I find upon referring back to February, 1897, that all conditions are much more favorable thus far this season than found on same dates last year—giving those who cultivate the soil the benefit of getting cane planted earlier in the season and the opportunity to get at such needful work as that of preparing the soil and planting corn, sorghum and millet for hay making.

While there is heard now and again bits of agitation relative to building sugar factories in various places and localities in our Red river parishes, it is extremely doubtful if much more than plans and agreements will be reached this year.

The growing town of Bunkie is anxious for a big sugar factory. There is no doubt about the location being a superb site for a factory. Having the advantage of two railroads, both of them traversing the finest cane lands in the State, is sufficient inducement of itself for building a first-class, up-to-date sugar factory and refinery.

The Bunkie Blade, which suspended publication some months past, has during the past week come out again, looking new, fresh and full of life, under the editorial control of Mrs. L. Burges. THE PLANTER'S correspondent hopes the Blade will carve a clean cut for both the little city of Bunkie and the whole parish.

At this point I beg to say that if every one in this and all the States in which a stalk of sugar cane can be grown would procure "Sugar Cane," by Prof. Wm. C. Stubbs, "The History, Botany and Agriculture of Cane," much might be gleaned by its study, to the advantage of the cane grower.

While I am not positive, yet it is my opinion that an effort will be made by the farmers to plant and try to make more corn this season than they did last. This thing of having to purchase corn and hay, meat and flour, as well as nearly everything else used on the farm from either St. Louis or the East, has more to do

with keeping the country and its people poorer than growing 5-cent cotton. ERIN.

Vermillion.

[Special Correspondence.]

Editor Louisiana Planter: This past week has been magnificent farming weather, with the exception of last Friday, which was a little too wet for ploughing or cane planting. Our farmers seem to be more determined this year than ever before to make a good showing at their work, they are starting early and put in every day that they can—in fact, the future before them at present is much brighter than they have had for years or possibly ever had before, which is a stimulus within itself for action. All branches of farming have a brighter future prospect but cotton, and it is very probable that but little of that staple will be raised here after this year. The cane, or rather the sugar industry is assuming quite huge proportions in the parish, and with the additional irrigating canals that are now being constructed and those that are in prospect, almost all the parish west of the Vermillion river can be utilized for rice while the eastern portion will be developed into cane. Cane planting is being rapidly pushed to completion and the increase in acreage will not fall below the percentage heretofore mentioned in THE PLANTER—if anything the increase will be more than 100 per cent. Seed cane kept splendidly, and as there has been no cold weather to destroy the stubble it is reasonable to suppose that there will be a good stand all round. There is some talk of a syrup mill being erected at Erath by some of the Teche factories. If it is done the syrup made at that point will be shipped to the Teche to be refined. Erath is one of the finest locations in the State for a large central refinery, being immediately surrounded by thousands of acres of very fine sugar land that is almost entirely undeveloped.

The rice industry is at present taking the lead of any other branch of farming in this section, and there is liable to be greater developments in that line within the next two or three years than all other branches of agriculture put together. The immense irrigating canals that are being built now and to be built in the near future will offer advantages for rice growing that were never dreamed of till a couple of years ago, when the Vermillion Developing Company put in its large plant in the western part of the parish. This company is now extending its already immense facilities, and when through it will have an irrigating capacity of at least 50,000 acres of land. It will extend its canal six miles further west, to deep water on the Bayou Queue de Tortue, and thence east to Wright postoffice, or four miles east of its present terminus, and will, we are told, put in a \$90,000 pumping plant to supply the canal with water. And this is not all. In an interview with Mr. Granville B. Shaw of this town, this afternoon, your correspondent was informed by that gentleman that quite a huge scheme was on foot to build an irrigating canal from Vermillion river to the Gueydan pasture line, a distance of twenty miles west, and that the right of way of 200

feet had been secured along the entire route. Mr. Shaw and Mr. E. H. Gueydan have been working this matter up for some time, and they have succeeded in so completely perfecting their arrangements that they are now sure of the success of their undertaking. Civil engineers made a survey of the route some months ago, and their report was very satisfactory to investors and lessened the work of those gentlemen in interesting sufficient capital to carry the scheme through. This canal, when completed, will pass through the finest rice lands in the State, which are now lying idle for the lack of proper facilities to stimulate their development. There are many thousands of acres awaiting the competition of this canal and the hand of energetic tillers of the soil.

P. C. M.

St. James, Left Bank.

Editor Louisiana Planter: The fine and springlike weather which we have been enjoying for almost a fortnight seems a blessing from heaven. Everything has revived. Outside of a somewhat heavy rainfall, which visited our locality Saturday night, we have had no rainfall since last I wrote, and barring the daily appearance of fog, which happily is not of a very dense nature, the atmosphere has been simply grand.

Planting, which has been vigorously done, is at an end on some plantations, Wilton plantation taking the lead in terminating, and many others expect to finish before Saturday. The planters in general are well satisfied with their seed cane, and have enlarged their crops to the best of their ability.

Mr. Jules Jacob, Sr., has recently purchased the undivided half of the Uncle Sam plantation belonging to his brother, Mr. Camille Jacob, for the sum of \$40,000. Mr. Jules Jacob has thus become the owner of the entire plantation. We understand that the sugar house will undergo thorough repairs—the erection of a new mill being one the most important changes to take place.

Mr. Joseph L. Rolling, who has lately purchased the interest in Pike's Peak, of Messrs. Keller & Lasseigne, has removed this week to his newly bought home.

The rapidly rising river is already causing trouble. On Friday morning a protection levee at the Nita crevasse gave way and a terrible rush of water occurred, necessitating the removal of the camp, which was then busily repairing that levee.

District Court has been in session since last Monday. The docket has been well filled with a list of criminal and civil matters.

Mr. H. O. Colomb, a well-known citizen of our parish, died at the house of his son, Dr. Brooks Colomb, on Friday, the 4th inst., after a brief illness, at the advanced age of 76 years. Sentiments of condolence are extended to his bereaved wife and son by his many friends.

Since I have started writing, a great change has occurred in the elements. A hard-blowing east wind has brought us a heavy rain, which has been falling steadily. Everything is flooded, and according to indications we will probably have more of it.

Dr. Eugene Bourgeois and wife, of West

Baton Rouge, were on a visit to relatives in St. James parish during the week.

We hear of a number of persons from St. James who expect to add to the crowd of the city for the coming week. CONVENT.

Views of an Experienced Sugar Boiler.

In a recent issue the attention of the sugar boiler was called to the report on manufacture of sugar. As I have had some practical experience, both here and in Germany, I beg to be allowed to bring some of my observations to the notice of interested parties.

In the first place, there is but little progress made in the actual manufacture in the past ten or twelve years. The attention of the planters has been concentrated mostly on the extraction of cane juice, and the boiling department has not kept pace with the milling. I am glad to hear that Professor Maxwell has recommended less maceration; this has been carried greatly to excess since the addition of second and third roller mills. The juice obtained by high maceration we are unable, at the present state of manufacture, to work to any advantage into a marketable product. High maceration depreciates the sugar considerably in quantity and has not the effect as supposed to increase the quantity.

I know that this statement will be considered ridiculous by many manufacturers, but for those it is very easy to convince themselves. A test is easily made by running, say, one week with 4 to 5 per cent. and the next week with 14 to 15 per cent. maceration. Of course a scale is necessary for weighing the cane to get at the correct figure. Now with low maceration the mill is running like clock-work; with high maceration there is a lack of steam, the boiling house is crowded—juice that ought to have been in the effects forty minutes sooner begins to get cool, inversion sets in sooner on account of the low density, overtime is made, the cooler room gets crowded and low grade sugars have to be dried ahead of the proper time, at a sacrifice, to make room for new lots. At the end of the week we find our effects have accumulated more scale and a larger cleaning force has to be put on. Finally we draw the balance; we find the shipping report a little lower, and the sugar on hand in cooler columns shows higher; the polarization is from 0.5 to 0.8 lower; everybody has worked harder, there has been more wear to the machinery, and what have we gained?

The gain consists in four to five gallons more of waste molasses to the ton of sugar, with a considerably higher percentage of sugar. Now every manufacturer knows what a nuisance waste molasses is. A market value it has not, under the present circumstances. Even when applied as a fertilizer it is very doubtful as to its value there, because of its tendency to grow a very rank and impure cane. It is my firm belief that maceration has to be moderated until the problem of waste molasses is solved. It is true that the yield of sugar per acre is 30 per cent. higher against former years, but the credit is mostly due to far better cultivation of the cane.

In regard to evaporating effects, the machinery in use here is fully as good as that in Germany. The difference lies chiefly with the juice. In German factories the juice is highly clarified and filtered before being subjected to evaporation, and the accumulation of scale, therefore, but very slight. Besides, the water used for condensing is almost up to freezing point, which quickens the concentration of the juice considerably. It has to be admitted, greatly to the credit of the Hawaiian planter, that he has spent his money freely for new improvements to effect better results. In regard to the drying of sugar, I doubt very much that any benefit could be derived by the appliance of blasts or pans, as suggested at the last meeting, to obviate the difficulty of the sugar leaving the centrifugals too hot. This should be rectified at the vacuum pan. At the closing in of a strike the temperature of the vacuum pan should be greatly reduced and the sugar be kept as long as possible in the mixer. This proceeding will greatly increase the percentage of No. 1 sugar, besides deriving better results from the low grades.

A certain amount of heat in the sugar is necessary to absorb the moisture, and a too rapid cooling of the sugar will make it clammy and sticky. The general adoption of steel scrapers instead of wood paddles would hardly be advisable. Besides destroying the centrifugal screens, much valuable time will be lost, and time is a rare article in a sugar mill in operation. Carefully prepared sugar will stand the voyage to New York all right without any loss to quality.

I was told once by a prominent Hawaiian planter that he had found plenty of people without money, but never a one without an excuse. Now the excuse about the centrifugals being in bad working order is a very poor one, in my estimation, for any sugar boiler to make. Of late there have been a few young men of sanctimonious habits, after only a few months' experience in the mill, pressed into the service, without any previous training whatsoever. A little more prudence in the selection of sugar boiler will undoubtedly bring the centrifugals up to standard work all right. Badly crystallized sugars will not dry well under any circumstances.

The instructions issued by Professor Maxwell in regard to liming juices should be highly appreciated. It shows that the trusty laboratory is alive to the interest of the planter. Perhaps a slight warning against excess in liming would not be amiss. Overlimed juice will form a hard scale in the effects, and a dull evaporator will convert a slight percentage of otherwise crystallizable sugar into waste molasses.—*Gus. Froboese, in Hawaiian Planter's Monthly.*

Kahuku, December 1, 1897.

Trade Notes.

Wagon and Cart Materials.—Capt. Harrison, of Peckinpugh, Harrison & Co., well known throughout the length and breadth of the land as the man who sells wagon and cane cart material, tells us that he will come down the river with his industrial navy this spring, as usual, reaching Waterloo early in March,

and Baton Rouge about March 15. One of his boats will go down Bayou Lafourche, reaching Thibodaux about April 10. Doubtless all our planters will embrace the opportunity of getting first-class goods at low prices, delivered right on the plantation.

Personal.

Hon. Andrew H. Gay, Mrs. Gay and Miss Gay, all of the pleasant parish of Iberville, were at the St. Charles Hotel during the week.

Mr. Ed. McCollam, one of the leading business men and most successful sugar planters of the parish of Terrebonne, which can boast of some of the finest plantations in the State, was in the city on a visit a few days ago. Mr. McCollam registered at the St. Charles Hotel.

Mr. G. D. Von Phul, of Baton Rouge, La. was registered at the Hotel Royal last Tuesday.

Mr. Thomas A. Badeaux, of Thibodaux, was a guest of one of our leading hotels a few days ago, as were also Messrs. L. P. Caillouet and O. Nauquin of the same locality.

Mr. Wibray J. Thompson, of Calumet plantation on Bayou Teche, was a guest of the St. Charles Hotel last Sunday, as were also Col. L. S. Clarke, of Lagonda plantation, and Mr. Jos. Birg, of St. Mary parish.

Col. J. B. Wilkinson, Jr., member of the United States Board of General Appraisers in New York, and one of the distinguished Wilkinson family which has long been identified with the sugar industry of this State, was in the city last Saturday.

Mr. H. C. Boas, of Iberia parish, came down from his plantation on Friday last and stopped for awhile at Colonel Rivers' hotel, which is getting a good share of the planters' patronage.

Mr. N. E. Haydel, of St. Charles parish, was a recent visitor to the city. Mr. Haydel put up at the Hotel Royal.

Mr. M. M. Hedges, of the great Casey & Hedges Manufacturing Company, of Chattanooga, Tenn., was a guest of the Grunewald last Saturday.

Mr. and Mrs. Jos. Supple, of Bayou Goula, have returned home after a pleasant trip to New Orleans.

Justice E. D. White, of the United States Supreme Court, whose skill as a sugar planter is only eclipsed by his ability as a judge, has been in the city for several days past, mingling with his friends.

Col. Richard McCall, of McManor plantation, was in the city during the past week, as was also Hon. Henry McCall, of Evan Hall.

Mr. E. P. Munson, a prominent planter of Assumption parish, was at the St. Charles on Friday.

Mr. John D. Murrell, of the Tally-Ho plantation in Iberville parish, accompanied by Mrs. Murrell, were in the city during the week to enjoy the Carnival festivities. They registered at the Hotel Royal.

Mr. Henry T. Ayraud officiated as engineer this season at the well-known Stonewall plantation in Pointe Coupee parish. Mr. Ayraud was at one time on the fine Palo Alto place in Ascension and is known as a first-class engineer.

FOREIGN LETTERS.

Berlin.

BERLIN, January 31, 1898.

Editor Louisiana Planter: The time is dragging along and no material change of the weather. Light frosts and rainy days are alternating, but no winter in the full sense of the word is making its appearance and the belief that there will be none at all is gaining more and more ground. If this should come true and our fall season be restricted only to a kind of tropical rainy time, there would be a probability of an early commencement of field work, which, it can not be denied, is in itself quite desirable; but on the other hand, the natural preparation of the soil, which, in normal seasons is done by means of hard frosts, is wanting, and it remains to be seen whether the advantage or disadvantage will outweigh the other. Calculating on past experience is in this case almost impossible, as mild winters like the present are too rare a phenomenon to lead to any conclusions as to the ultimate results. So far it seems at least that the winter cereals have not suffered, though the absence of snow is an object of great anxiety, for when a sudden frost should set in, which after all is still possible, the danger would be great and any harm done in this respect would entail an increased area of beet cultivation, which, under present circumstances of general overproduction, is of course not desired. The late drop in the sugar market has, by the way, cooled down a little the eagerness shown here and there to contract for beets—only in Holland it appears that they are bent on an increased beet culture for next campaign, pretty high prices being granted for beets.

Last week the saccharine question was discussed in the German Reichstag, to which, as your esteemed readers will kindly remember, motions were submitted to make the stuff and all similar sweets to be liable to be taxed in proportion to their sweetening power. The motions were supported by the Conservative, National, Liberal and Clerical parties, whilst the Progressists and Socialists pronounced an opposite opinion. The partisans of taxation laid stress on the possibility of fraudulent adulteration—that saccharine, without any outward mark or design, is used instead of sugar which is nutritious, while saccharine by many authorities is considered to be even injurious to the health of man, but whenever legally admitted as a competitor of sugar, it should not go scot free, and should be duly taxed. The industry may be still in its infancy, but it will grow, much capital will be invested in it and many workmen employed, therefore it is now time to step in and establish a sufficient duty, for later on such a measure must needs lead to disastrous consequences. On the other hand it was objected that by a tax as high as 80 marks per kilo. the industry would be ruined, and that the consumption is so far restricted to its use as a medical remedy, and that so high a duty would invite the smuggling of it, so that the government would not obtain any advantage by taxation. The Imperial government

has not taken any decided attitude on the question, but the Secretary of Finance recommended rather to interfere with the free traffic and commerce in these stuffs instead of taxation, which easily might be circumvented. The result of the debate was that the motions were handed over to a special commission of fourteen members, who are to report on the subject.

The meeting of the bounty conference is now fixed for the 15th of February, and so far, Germany, Austria, Great Britain, Belgium and Holland are reported to have declared their participation; as to France, advices are conflicting, but it is believed that she also will be represented, only she will not agree with the other powers with regard to the entire abolition of the bounties, her intention being to sacrifice the export bounties introduced last year, but to maintain her so-called indirect bounties, which, however, as everybody knows, are the heaviest. On this occasion it may be well to remark that the consumption of sugar has decreased in 1897 to the extent of 75,000 tons, whilst the exportation shows an increase of upward of 250,000 tons. By these figures it is clearly demonstrated that the policy of fostering the export by overburdening consumption has borne its fruit, but there are signs that people are awaking to those facts. In the French chamber a bill has been brought in by a deputy to reduce the tax, which amounts at present to 60 francs for 100 kilos. refined sugar, to 44 francs; furthermore, that the new export bounty shall be done away with as soon as the other powers give up theirs, and that the so-called *excedants* shall be subject to a tax of 16 francs. The progress achieved by the bill if it becomes a law would consist in the lightening of the burden of consumers, while the producers are very tenderly dealt with, as they are to retain 28 francs of the 30 francs bounty now allowed to them for the sugar produced in excess of the legal yield. But it is hardly worth while speaking of it, for there is little or no hope that under present circumstances a bill like this will be adopted by the French Chambers.

Of technical innovations, I have to report that the Ranson process, which enables the manufacturer to produce a superior kind of raw sugar, has been introduced in a German factory with good success, so that it seems that it will be applied by and by on a large scale. Recently, also, a newly improved beet-slicing apparatus has been tried and proved a success, its principal advantage being to produce long cuttings.

The markets continued in the first part of the period under review very quiet, the more so as to the slow demand was joined increased arrivals in the ports of Cuba and of America, showing signs of weakness. Only at the end of the week the tone improved a little, and part of the proportionately heavy drop the prices had endured in the first days could be recovered. There is, however, a very unsettled feeling prevailing, but after the settlement of the February tenders a more confidential course of affairs may be looked for. Magdeburg prices for actual 88 per cent. remendement close at 9.85 to 10.10 marks, whilst delivery

January at Hamburg is quoted at 9.12 marks. Refined were also very quiet and partly lower.
ROBERT HENNIG.

New South Wales.

Editor Louisiana Planter: I am glad to know that Dr. Maxwell, of Sandwich Islands, is going to classify canes, and find out their comparative values. Under present circumstances in New South Wales there is little inducement to go to further trouble with canes, seeing that, unless something intervenes (either federation or an entire change of government) the industry is doomed. However, it is encouraging to know that the sugar growers of the United States were in a similar plight not long ago, while now they are enjoying protection to the extent of about £9 per ton. The last meeting of the Federation Convention comes off at the end of the month, while the present government must go out in six months' time, if not before, so we have not long to wait now.

Tweed River, N. S. W., Australia, January 2.

An Opportunity for a Good Investment in Mexico.

HQRS. MEMORIA, TOPOLOBAMPO,
Sinaloa, Mexico, February 2, 1898.

[Special Correspondence.]

Editor Louisiana Planter: I address you this in the hope of reaching capitalists in your State who are seeking investment in sugar production, and hope, if you know of any such, you will refer this to them. Myself and family relations own a cane plantation of about 275 acres. A number of neighbors near us, adjoining, have about 125 acres more, and if we could be sure of the erection of a good open train sugar house by next season we would more than double the present acreage, provided we can close a deal during this month or early in March.

We shall be pleased to deal with capitalists for the erection of a first-class mill on the profit-sharing basis or any reasonable terms mutually beneficial to both parties, or we will give good return for capitalists who will erect the mill complete and sell to us in instalments with good interest.

If you know of parties who desire such investment a trip down here immediately might result very advantageously to both parties.

Our plantations are but about fifteen miles from the wharf at Topolobampo harbor, one of the finest and safest ports on the Pacific coast. Our plantation is under irrigation, and the cane juice weighs at this writing 10 deg. B., and we have just had a three-days rain pass over.
JOS. P. SCALLY.

Col. J. B. Lyon, of Chicago, who is extensively interested in sugar and the production thereof, was in the city during the past week on one his frequent visits, stopping at the St. Charles.

Hon. James A. Ware, of Belle Grove, came up to town a few days ago on business and pleasure combined.

Mr. L. E. Callery and Miss Callery, of St. James parish, were guests of the Cosmopolitan recently.

BET SUGAR.

Eddy, New Mexico.

Manager Goetz, accompanied by the gentlemen interested in the sugar factory at this place, came in from Milwaukee, Tuesday. The party is composed of August Uihlein, president of the sugar company; H. Nunnemacher, William J. Uihlein and R. Nunnemacher. They stopped one day at Fort Worth and one day at Thurber, Texas, en route here. They traveled in Mr. J. J. Hagerman's private car, and report having had a very pleasant trip.

Soon after their arrival they inspected the big sugar plant, whose existence is due to the financial assistance afforded by themselves. The gentlemen are in no way displeased with their investment, and are very sanguine of the future great possibilities which are now opening up so auspiciously in the valley. There was no effort made by the *Argus* to interview the gentlemen, or to gain from them expressions for publication regarding their plans for the factory the coming season, preferring to wait till they had inspected the valley thoroughly and carefully canvassed the situation. The people of the Pecos Valley are most kindly disposed toward these gentlemen, who have given them one of the modern manufacturing institutions of the age, and will co-operate heartily in any plan which may be proposed.

Tuesday afternoon they visited Lake Avalon and made a study of the excellent irrigation facilities with which the valley is provided. Being the first visit of any of the party to Eddy, this feature was quite a surprise and a most interesting one.

Tuesday evening an informal reception was held in the Union Club rooms, where the citizens of Eddy were presented to the party, and a few hours very pleasantly spent.

Wednesday afternoon the party went up to Roswell, to look over the upper valley. They returned late Thursday evening, and go on South to-day.—*Pecos Valley Argus, February 11.*

Contract Controversy—Situation at Grand Island Regarding 1898 Contract.

Editor Louisiana Planter: Judging from present indications, next season will not be very profitable to either beet grower or manufacturer in Nebraska. The direct difficulty lies in the inability to secure sufficient acreage under the existing contract.

Complaints were numerous during the season just past about the old contract, and no sooner had the beets been delivered and the campaign closed than a large number of the growers perfected an organization for mutual benefit, their first request being a more equitable contract.

Under the 1897 contract, 12.80 beets brought \$4 per ton; 12.73 beets, \$2.50 per ton; 11.73 beets, \$2.50 per ton, or, in other words, the standard was 12.80—a deduction being made for those falling below, while nothing additional was given for higher grade beets. The growers generally looked upon this arrange-

ment as unjust, and at their first meeting the sense of those present was that a straight price of \$4 per ton should be paid for all beets, regardless of sugar content or purity, being similar to the existing contract of the Spreckels factory. A communication to this effect was forwarded to President Oxnard.

In reply, Mr. Oxnard set forth the inadvisability of paying a straight price for beets, for the reason that the growers would seek to raise a high tonnage to the detriment of sugar and purity. For obvious reasons it is to the manufacturers' interest to have beets raised with as high a percentage of sugar and purity as possible. Mr. Oxnard advised farmers that if they have not the proper land and are not able to cultivate beets properly, to raise a crop of at least 12 per cent. sugar and 78 purity, they would better not raise them. To encourage growers to raise richer beets and prevent a low quality, Mr. Oxnard formulated a new contract with that end in view.

According to the new contract all beets containing not less than 12 and up to 14.4 per cent. sugar, purity 78, receive \$4 per ton. Beets containing not less than 14.5 to 15.4 per cent. sugar, purity not less than 78, \$4.25; and an additional price of 25 cents per ton for each and every additional per cent. of sugar, and not less than a purity of 78, \$4.50 per ton; 16.5 to 17.4 per cent. sugar and purity not less than 78, \$4.75 per ton, etc.; 11 per cent. sugar and purity coefficient 78, \$3.50 per ton; 10 per cent. sugar and 78 purity, \$3 per ton. Beets not reaching 78 purity a reduction of 15 cents per ton will be made for each degree of purity or a fractional part thereof below 78. Beets testing 10 per cent. sugar and 73 purity will not be received. The average thus should be something over \$4 per ton.

A comparison of the two contracts shows up favorably for the '98 contract.

CONTENTS OF BEETS.

Sugar per cent.	Purity per cent.	Price per Ton Season 1897-1898.	Difference in Price.
12	80	\$4 00	\$4 00

LOW GRADES.

12	79	3 75	4 00	.25
12	78	3 50	4 00	.50
12	77	3 25	3 85	.60
12	76	3 25	3 70	.45
12	73	2 50	3 25	.75
11	78	3 25	3 50	.25
11	77	3 00	3 35	.35
10	78	2 50	3 00	.50
10	77	2 50	2 85	.35

The price of low grade beets is thus increased, the difference being something over forty cents per ton in favor of 1898. So many beets test above 14.4 sugar, the increase would be still more. The information conveyed in Mr. Oxnard's communication was quite favorably received by the growers generally, but when the contract was placed in their hands it was noticed that a clause had been added which somewhat changed the aspect. The clause referred to stipulated that in the event of the annexation of Hawaii, a cut of fifty cents per ton would be made. It was the prevailing opinion that the islands would be annexed, and the farmers, thinking they could not stand the cut, again assumed their first

position of a flat price of \$4 per ton for all beets, regardless of test.

It is conceded that had the clause relating to the annexation of Hawaii been left out the manufacturers would have experienced no difficulty in contracting for all the beets they desired. As it now stands but few beets have been contracted for. The situation is practically the same at Norfolk. A later telegram from Mr. Oxnard reads:

"We will close our factory if we do not get the beets, as we can not offer more if Hawaiian Islands are annexed."

C. VINCENT NUSY.

Sugar Beet Seeds.

By PERRY L. HOBBS, PH. D.

The rapid strides in the advancement of the sugar-beet industry and its developments have eliminated all doubt as to its success in the future, and is even now becoming one of the most important industries of this country. The factories which are now in operation have shown remarkably well from the financial standpoint, and add another argument for its future. Not only is it necessary to satisfy capital in this venture, but the farming element as well, and it seems to be a case where the producer can obtain his equitable share of earnings.

There is absolutely no reason why we should not be entirely free from all foreign supply and add to our own economic credits one of the greatest of modern civilization, and thereby become producers as well as consumers. The only thing necessary to make the industry a success is a perfect knowledge of the business, both in its manufacturing and farming part. Politically we are unhampered by foreign laws and taxes, and the revenues which accrue to the State there would here become a part of the dividends. The two factors of greatest success is to control the raw material and also the finished product, and much more is dependent upon the raw material, the beets, than upon the latter, the sugar.

So it becomes a matter of greatest importance to the farmer to inform himself of the best possible methods of cultivation, and also the quality of the seeds he is to use. Upon his seed depends largely his crop of beets and their sugar content. He wishes to supply himself with the best seed, to get the best result and make the most money; for his success as a grower depends upon not only the size of the crop, but he must satisfy the buyer in the amount of sugar content, and the larger the per cent. of sugar the more money accrues to him and the manufacturer.

Having become interested in the laboratory testing of beet seeds I wish to express my appreciation of the kindness of Mr. Jos. E. Kohn, sugar chemist and mechanical engineer of the Kilby Manufacturing Company of this city, who kindly furnished me with several imported varieties which came direct from one of the largest European houses; and which I tested, and the results will be given later.

The seeds are some of the best varieties and all fresh crop. They are said to produce 15-20 tons of beets per acre and the average quality was:

	Per cent.
Saccharometric test	21.3
Polarization	18.6
Foreign substance	2.7
Purity	87.6

It is easily seen that the class of the seed is of the best and which the farmer would make no mistake in planting, being assured however that the seeds were fresh. I may also add that these figures are guaranteed under good cultivation, and are the results of many tests.

This matter of purity of seeds is of such consequence that one of the largest Holland syndicates has established the strictest specifications regarding it; and it is now, I believe, incorporated in one of the rules of the Board of Trade, or Exchange at Prague, Bohemia, and is under the control of practical men and sworn chemists. The specifications call for:

1. The seed must be true to name, sound, freed from mould, contain not more than 3 per cent. of foreign matter, as sticks, stones, dust, etc., they must not ball up or cling together in clumps, and contain not more than 15 per cent. of water.
2. The seed must produce a certain number of plants in a certain time and the duration of the test is fourteen days.
3. One hundred seeds must produce in the first six days ninety-five sprouts, at fourteen days not less than 150 sprouts; at least, 70 per cent. of the seeds should have developed in six days, and in fourteen days, 80 per cent. is the minimum.

The seeds which were tested here were cultivated by Mr. Ramdohr Nechhausen, bei Eisleben, Germany, and came through his representative, Frank Jodl, Prague, Bohemia, Austria. They gave the following results:

I.—VILMORIN BLANCHE.

Seeds per kilogram	29,410
	Grams.
100 seeds weigh	3.400
	Per cent.
Foreign matter	1.5
Moisture	7.
Seeds which germinated	98.
	Sprouts.
100 seeds produced in six days	142
100 seeds produced in fourteen days	204

II.—IMPROVED KLEINWANZLEBEN.

Seeds per kilogram	26,200
	Grams.
100 seeds weigh	3.815
	Per cent.
Foreign matter	2.6
Moisture	7.8
Seeds which germinated	96.
	Sprouts.
100 seeds produced in six days	114
100 seeds produced in fourteen days	233

III.—ELITE.

A cross between the Vilmorin Blanche and improved Kleinwanzleben.

Seeds per kilogram	28,400
	Grams.
100 seeds weigh	3.815
	Per cent.
Foreign matter	2.6
Moisture	7.8
Seeds germinated	99.
	Sprouts.
100 seeds produced in six days	114
100 seeds produced in fourteen days	233

The above results show that the seeds were

unmixed with old seeds and were of a fresh harvest.

The growth was regular and finished in the allotted time and fully complying with all the specifications, and that they were of superior quality when judged upon those tested.

It is thus seen to be a matter fully under our control to draw the supply of seeds and have a positive assurance that at least we are beginning our year's work right, and that our time is not lost in planting worthless stuff. And the object in publishing the above results is to give information as to *what the seeds should be and do.*

Chemical Laboratory Western Reserve Medical College, Cleveland, Ohio.

Remarks on the Production of High Grade Sugars.

The difficulties of graining the No. 2 sugar in the pan, and obtaining an always even high grade, are well known to many sugar boilers in the islands, and the perplexing nature of them is sometimes annoying and disgusting. While there is occasionally no difficulty to produce such a grade of sugar of 94 and even 96 per cent. polarization, at other times a slow drying sugar of 89 or thereabout will result, through which the drying and subsequently the total capacity of the factory may be seriously impaired. In the one case we have to deal with a molasses of high purity, while in the other the special viscous nature and not always low purity of the molasses renders the production of a higher grade impossible, and if the shipping of such a sugar should be objectionable, remelting must be resorted to, which again may cripple the capacity of the house. As I have also suffered from these difficulties to a greater or lesser extent, I decided, if possible, to do away with the boiling and graining of the No. 2 altogether, by applying Dr. Bock's process of crystallization in motion, in part only, to the No. 1 *masse cuite*. As it gave satisfaction, both in quality and quantity, from the very start, we have been producing our sugar by this method since June last, and if properly and carefully carried out, gives excellent results.

The *modus operandi* of this process, which without additional outlay can be introduced into any mill, is as follows: The graining of No. 1 is started low down in the pan and a medium sized grain is aimed at. As soon as the separation of the grain has taken place, No. 3 sugar remelted in water is boiled in, in proportion to its daily production, and evenly distributed over the daily strikes of No. 1. The strike is then taken along with syrup to within a certain limit of the pan's capacity, to be easily ascertained and fixed after the first strike. Now molasses, resulting from previous strikes, diluted to 30-35 deg. be blown up, and slightly skimmed, is boiled in at the rate of 65 to 75 per cent. of the total molasses resulting from a strike, and the strike finished with it to the usual stiffness of the *masse cuite*, when it is dropped into the mixer and dried immediately. The formation of fine or false grain must naturally be avoided during this process, so as

to utilize as much as possible of the sugar contained in the molasses, toward the growing or building up of the existing grain. The molasses resulting from strikes thus obtained, are mixed such as they come along, diluted, blown up, skimmed and boiled in over and over again, until the purity sinks low enough—64 or less—when a certain proportion of it is daily boiled into coolers as No. 3, which, when dried, is remelted and boiled in immediately, while the No. 2 results as No. 1 sugar of 97, or even higher polarization, from juices of an original average purity of 87½.

Owing to the viscous nature of the molasses, it sometimes happens that the boiling in of it, as also the boiling down of the strike, becomes a rather slow and tedious process. This I have found can readily be overcome by Classer's method of introducing steam into the strike through a perforated coil placed on the bottom of the pan, through which the evaporation of the liquid about the coils, especially toward the end of the strike, is greatly accelerated.

Sugars thus produced dry well and do not deteriorate, if sufficiently machine-dried and obtained from juices properly limed. Under proper liming I understand a distinct alkalinity of the juice and a light yellow, clean color of the resulting sugar is obtained. The yield, as far as it can be estimated from clarifiers, has been higher than when producing two grades, i. e., first and second for shipment.—*H. Pohlmann, Pahala Plantation, Kau, H. I., Hawaii, in Hawaiian Planters Monthly.*

The Sugar Factory at Ogden, Utah.

A meeting of directors of the sugar factory company was held yesterday morning, and the machinery contracts were formally accepted. The purchase of \$20,000 worth of water tube boilers was also confirmed, and the machinery contracts are now settled.

Although the location of the factory has not yet been decided on by the committee, yet one member of the committee stated yesterday that the factory would be located in Wilson's lane, provided that the company could secure the land and sufficient water at figures which had been about agreed upon. A meeting of the irrigation companies interested will be held next Thursday, and before then the location can not be made definite. Yesterday the entire day was spent in negotiations with the farmers and property owners in Wilson's lane.—*Lehi Banner.*

Mr. C. L. Bougere, of Laplace, La., was a guest of the Hotel Royal on Thursday.

Mr. F. J. Drulhet and Mrs. Drulhet, of Jeanerette, La., were in the city on a visit a few days ago, as was also Mr. L. F. Suthon, proprietor of the Cote Blanche plantation in St. Mary parish.

Mrs. J. L. Darragh, of Centreville, La., where she has extensive sugar planting interests, was a guest of the St. Charles Hotel last Wednesday evening.

Col. Walter I. Barton, of Ascension parish, where he has very extensive sugar planting interests, was at the St. Charles Hotel on Wednesday.

Handling Cane at the Cane Carrier.

[Discussion at the Meeting of the Louisiana Sugar Planters' Association, Thursday, February 10, President Judge Emile Rost in the Chair.]

The Chairman—The topic for discussion this evening is the handling of cane at the carrier. That is the business before the association; and there are gentlemen who have kindly consented to read papers on that subject, or will take part in the discussion. The chair will first call upon Mr. LeBlanc, of Messrs. LeBlanc & Nadler, to present their system of the handling of cane.

[Here followed the reading of the several papers on this subject, all of which appeared in our issue of February 12.]

Mr. J. P. Kemper—I would state that at Glencoe, where one of my devices was installed last year, with the exception of a few minor details, it worked gratifyingly. It required two men, one man at the clutch and one man at the drag. We handled 250 tons a day. As I just said, we had one man at the clutch and one man to drag the cane on to the carrier, and we used another to straighten it, but if we had a crusher, we would not need any one for that purpose. A load of cane takes up nearly eight feet this way when dumped on this table (indicating). So I had this made 800 feet long, so that it would hold forty loads to store. You see, during the daytime, of course, you dump loads at the carrier; the same crew will feed 800 or 1000 tons a day as well as it will feed 250.

Colonel Zenor—How many tons do you estimate to the load of cane.

Mr. Kemper—Of course they will scatter out—there are both large and small loads—but those I refer to averaged about one and one-half tons.

Colonel Zenor—Forty loads would be sixty tons.

Mr. Kemper—Yes, sir. That is about what one table of 300 feet could store; but if you wish to increase the storage capacity you simply increase the number of tables.

Colonel Zenor—Can you handle that table with one man with sixty tons of cane on it.

Mr. Kemper—Well, that is the very point. You see this floor is stationary, the table is not movable; nothing moves but the chains—they slip along underneath the canes.

Colonel Zenor—Is that drag used just to drag on a load of cane?

Mr. Kemper—To feed the carrier, a load is dumped here on this table, and behind it we place the drag, dragging one load at a time.

Colonel Zenor—There is space left?

Mr. Kemper—There is no space left; that would require too much space. I have an arrangement which has two hooks which I hook into these chains behind each load for night work. It is sufficient to get these in at night. Of course in the day time you always leave space behind each load, because it is convenient to do so; but if you left space always between each load there would be too much space lost. For increasing the storage capacity you may lengthen the tables or increase their number. You can not always get 300 feet at right angles to the carrier, but you can increase the number of the tables, and it depends entirely on the length of the carrier. In fact, it resolves itself into this: Plank your entire cane yard for space enough to store as many loads as you care to store of cane. Then have these sprocket chains at intervals of, say, 15 feet apart. Have a pair of these chains operated from a drum and separate friction clutch right behind the engine and drag the cane on to the carrier. You can in that way store any quantity you want, figuring on a basis of about 15 feet to the length of a load and a width of 8 feet.

Colonel Zenor—Don't you think it preferable to have that table not so wide; for instance, you had six tables each 150 feet wide—that would be 900 feet. According to your estimate that would store 180 tons.

Mr. Kemper—Yes, sir.

Colonel Zenor—You spoke of two men straightening cane.

Mr. Kemper—I said one man; we fed 250 tons and I had one man; and this is where we have no crusher. The quantity of cane you put on that—you can regulate your speed, but of course there is most of it on this side, and you need a hook to pull over from the other side if you have no crusher. I believe in an absolutely uniform feed. I find it is necessary to get good extraction, and for that reason I had another man to straighten it to get it perfectly uniform.

Colonel Zenor—I have never yet been able to have cane put on the carrier by hand so correctly that I would not have to have some hands to straighten it, one on each side to straighten my cane when it is pulled off the cars, using hooks generally. In taking the cane from the cars I have to have from two to four men—four men, generally. Four men, I find, with hooks, can pull thirty tons an hour; and it takes four men to straighten that cane properly.

Mr. Kemper—You can dump alongside; a load of cane just dumped lengthwise gives you all your cane exactly alike; and when pulling it on, why it is already straight, or practically so; and it is the proper position to go on easily.

Colonel Zenor—I had not alluded to that.

Mr. Kemper—I would say that I have made an arrangement with the Link Belt Machinery Company to handle this device of mine. I did it because they make a specialty of sprocket chains that can work. This thing is all sprocket chains and wheels and a friction clutch with a little engine—the rest of it is good work. I thought they could make lower figures on it than I could. They are getting up plans for it now and they are ready to talk business.

Mr. Bodley—How do you get that pulling board back?

Mr. Kemper—Take it and carry it bodily. I did start to fix an arrangement which is nothing but a cable suspended from the top of shed back to the rear end of the table, so attached to this that when it got here (indicating) it would be raised sufficient to clear the next load of cane. That can be done, but it would not save any labor.

Mr. L. M. Soniat—How large a boom or pulling board do you have?

Mr. Kemper—Well, now, that is something I had to modify. I started out with a 3x15; that is heavier than necessary and is not of the right shape. A 5x5, 12 feet long will do. A 5x5 will not turn over, it will lay where you put it. I just made this model for any kind of hook; in fact, I made this before I ever put one in actual use. I was guessing on that point. We had to modify this in several different ways. The only trouble I found with the rigging was the sprocket chain slipping—that is with old rigging; one side would go ahead of the other, and it would break it. I put in one link of chain so it would give and I changed the form to a 5x5, 12 feet long, and I find it is amply strong.

The Chairman—Mr. Kemper, your device is simply to be put up in connection with the derricks which will bring the cane on this part (indicating).

Mr. Kemper—No, sir; my device is to obviate hoists and drags. It is for cane brought by carts; there are no slings required, no hoisting—nothing of that kind.

The Chairman—Doing away with hoists, slings, drags, etc.

Mr. Kemper—It does not spoil your cane yard. You have a nice planked floor.

Mr. LeBlanc—I would like to ask the gentleman if in case of muddy weather he experiences any trouble with that platform. I think the device a splendid thing, but I would like to know whether he has trouble during muddy weather while dropping the cane on the platform.

Mr. Kemper—Of course there is some mud,

but it is considerably easier to throw that mud off—in fact, the amount of mud which comes on is infinitesimal as compared with that from the cane that is dumped on a muddy ground. The cane in this instance is dumped on a floor, a wooden floor. If you take the pains to knock off the big, heavy mud that drops off, why you will find that it is much less than the mud which you naturally get on cane dumped on the ground in muddy weather, but it gives no trouble.

Mr. Soniat—The mud don't interfere with the sprockets?

Mr. Kemper—That is the point. I had some uneasiness about it, but I will state that I experienced absolutely no trouble. The trash nor mud did not bother the sprockets at all. I have reports from another concern that has another device; in fact I will tell you what it is—it is the automatic feeder that the Link Belt Machinery Company has on that big hoisting device of theirs. They put one up for Mr. Burgieres. He remarked that he thought he might have some trouble with the trash, etc., getting in the sprockets. I saw the device in operation nearly the entire season, and he had no trouble from this source.

The Chairman—The first discussion to come up will be on the LeBlanc & Nadler system. The chair understood, Mr. LeBlanc, when you made your explanation that while this model which you show there was intended for the field, that you had an extension which would apply the same principle to the carrier.

Mr. LeBlanc—We take this ground that as there were so many carrier feeders offered we are prepared also to furnish a transfer where the railroad was used, and so we have brought forward the transfer where we could not get in with the carrier; that is the reason why we brought the transfer in. Its construction, as far as principle is concerned, is the same; but of course, sir, the model does not represent the carrier feeder, but the construction without this principle would virtually show the two sections of the storage track for cane at night depending on the length of that storage track and the amount of cane to be fed.

The Chairman—You can make it large enough to store one hundred tons?

Mr. LeBlanc—Yes, sir; one hundred, two hundred, three or four hundred tons.

The Chairman—Can you give an idea of the cost of a carrier like the one you describe—like the model here of the transfer part?

Mr. LeBlanc—This transfer, just as it stands laid down on a plantation, would cost \$250. We find, sir, that to be the cost of the transfer including two trolleys—the entire cost of that, allowing on a basis of \$80 carpenter work, which we have to pay, but which should be done on a plantation for \$40. Mr. Soniat, you put up two. About what did you find the amount paid for carpenter work?

Mr. Soniat—I do not know.

Mr. LeBlanc—We pay a carpenter, who charges us a pretty good price now—it costs about \$3.50 a day when we furnish that carpenter; but we can agree to put it up for \$80, we furnishing the carpenter and the plantation boarding the carpenter. The lumber will cost about \$90 or \$95, on a basis of \$15 per thousand, and the necessary "T" rail and bolts, everything with the exception of the nails, is \$50—say \$50. The lumber is \$100, and we will pay the carpenter work, as we would furnish it, at \$60. You see that gives \$210. I say that any plantation can have this carpenter work done for about \$40, as I know it is possible; they may even have it done for \$35, but if we have to send a carpenter the cost is \$60. That makes the total cost \$210. Then there are two trolleys, which I believe cost \$5 each—that makes \$220 for that apparatus, built up in the field, with all the necessary platforms of 2½-inch plank, with good solid sills and everything. In other words, every piece of lumber furnished. Of course, we are not including this railroad track.

The Chairman—I would ask Mr. LeBlanc what the length of that would be.

Mr. LeBlanc—The length would be 130 feet. From this point here (indicating) to that point back yonder (indicating) is 130 feet. You lose no space at all for car room. You have your empty cars right along here, and your loaded cars can be backed to this point. That is where the last loaded car stands. Mr. President, when that car turns out from there—this is built with a slight incline—that runs until it hits this stop here (indicating). It is then tripped. This is raised (indicating), and this little incline runs it along here. The man trips it, and sends that trolley back. It returns back by gravity to the other end. We took two men to run this. To move all the cars would require extra men. I believe that we are safe in saying that the transfer will handle five hundred tons of cane with two men—no mules, no hoist. Mr. Soniat has had this transfer in use two years, and I would simply ask him if he considered it satisfactory?

Mr. Soniat—Perfectly satisfactory, sir. I can handle a load a minute.

The Chairman—We will call on Mr. Soniat later to state the practical workings of it. You state the cost as \$260?

Mr. LeBlanc—We will say that the lumber is, say, \$100 for the lumber. We furnish all the iron material, "T" rail, bolts, everything necessary to put that in good shape, except the actual nails, for \$80. We furnish all the material for \$150. The carpenter work we would agree to erect for \$50. That is \$210, and two trolleys at \$5 each, is \$220. Now that will be the cost, excepting the royalty. For \$250 we would grant the royalty over any part of your plantation. That is, for the plantation proper, and we would bring in a privilege for it to be used on a railroad running down the track \$100 extra. In other words, we agree to give the royalty for \$250, and \$100 extra for any use down the track.

I would say that last year Mr. Soniat bought two, and the party next to his place had put in some transfer. I don't remember exactly whether it was the American hoist, or some other. I don't know positively which. The year before last I saw it working. They have since taken out the transfer and put ours in.

Don't confuse the transfer with the carrier feeder. I was speaking of the transfer entirely out in the field. That (indicating) represents the transfer out in the field, just the same as Mr. Mallon's, or anybody else's, to transfer your cane from cart to cars. This is intended to represent a railroad car. That is transferred simply from cart to car out in the field; that is the way it will stand. This is a transfer. Then I would venture to say, sir, when it came to transferring, I will bank the last—I will guarantee to transfer two loads of cane with that transfer against any other transfer transferring one. In other words, I will agree to make the test whenever it is called. I will guarantee to do this. You may put up fifteen wagons, one right behind the other. I will take the cane out of these fifteen wagons, transfer it into cars in half the time occupied by any other transfer in the market. There is no time lost—in fact, the only time required is in stopping to hitch these two little chains over that trolley, two chains around a load of cane; the cart drives off and turns out here. We run two trolleys; one is coming down while the other is going back with the body still suspended. While that car turns here, the man that is hitching the trolley to it turns around and lifts it. The driver never gets off.

Colonel Zenor—If I understand your device, it is simply to take the place of what we call our hoisters in the field to hoist the cane out of the cart and put in cars?

Mr. LeBlanc—Yes, sir; that is just what it is intended to take the place of.

Colonel Zenor—Does this chain that you have in your cart still remain in the cars or is the chain taken off?

Mr. LeBlanc—No, sir, the chain is fastened. It is in position. You see this load here (indicating) trips and the bar is ordinarily hanging just above the car. That trolley is run around with that bar still hanging, makes turns and comes down by gravitation; run to the other end, this car turns around here (indicating), comes around at this point (indicating) when the bar runs back. You haven't to wait for the same bar that came out; that is gone with the load. We use two trolleys to each transfer. Of course you can use one.

Colonel Zenor—You find two ropes sufficient to keep a load of cane together.

Mr. LeBlanc—Yes, sir; when you have a bar at the bottom. You know the bar at the bottom will prevent the cane from breaking, as it were, from the bottom, if you have your bar long enough. That bar prevents it from breaking.

Colonel Zenor—We use four ropes in place of two.

Mr. LeBlanc—In the field that hook is brought over and is passed through this ring, is pulled down tight, and wherever the slack comes you hook it.

Colonel Zenor—My transfer hoist will take cane from the cart and dump it in the car. The cart comes right alongside of the car that is on the railroad track. We just push over and drop it instantly in the car and the rope then is untied, the ropes hoisted out and the cane put in the car last. It comes to the carrier without any ropes in the car at all.

The Chairman—I would ask if the system you have described is the same in principle as the one employed at McManor, the trolley system, where the loads are brought, or on G. B. Reuss' place?

Mr. LeBlanc—As far as Mr. Reuss' place is concerned, that is not our track; that is our transfer; though I think the Link Belt Company put up that feeder. They constructed a different trolley and a different track; but in getting their cane upon the track, Mr. Reuss, after looking over the matter considerably, came to us and stated he would like to get our transfer, which was simply—that is all we have had. His transfer—we sold the right to use the transfer—the right to put cane out of the cars on that track; we sold the right to use that transfer to put the cane on the trolley track.

The Chairman—Are you prepared to state what the additional expense of your carrier attachment would be?

Mr. LeBlanc—I suppose the question you mean to ask is what a carrier feeder on the LeBlanc and Nadler type would cost for so many tons. This depends on the number of tons of cane to be ground, 150 tons, 300 tons capacity; I believe that for 300 tons they will be in the neighborhood of \$2500. We are not very cheap; we confess that, sir.

The Chairman—When you speak of loading carts into cars, what size are these carts?

Mr. LeBlanc—The same principle applies to small as to big cars. I have handled as high as 350 tons in a day with the American Hoist at one hoist in a day—a big day's work, but I think we could do twice that.

Well, sir; I would like to ask Mr. Soniat, what do you think one of these transfers could transfer to a point in a day. You made the remark about a load a minute. You have had two years' experience in this matter?

Mr. Soniat—At my sugar house I handle about 250 tons a day; not because I can not handle more, but because there is no more to handle; but I make it—I make the statement, and I would not be afraid to stand to it, that if we could handle the cars fast enough, and the carts, we could handle a load a minute easily—in fact, it is a question simply of bringing up the carts and the cars. I believe a load a minute could be handled.

The Chairman—You sometimes have to wait for one, and sometimes for the other?

Mr. Soniat—There is practically no limit to the quantity that can be handled.

The Chairman—You think the system will enable you to handle a load a minute?

Mr. Soniat—In fact it has done it.

Mr. LeBlanc—Just can't get the cars fast enough.

The Chairman—Won't Colonel Mallon or Mr. Bodley speak to the subject? The chair would ask Colonel Mallon if this system which is described in Mr. Bodley's paper has been tested. In other words, to give us "the proof of the pudding."

Colonel James Mallon—Mr. Bodley, I think, has had as much experience as I have had; he can tell.

The Chairman—The chair understands you have been making a round of the different sugar houses and you know where the system has been tried, even if you can not give results.

Colonel Zenor—Our friend Mr. Mallon is like most inventive geniuses—extremely modest and don't want to "blow his own horn," and has some one else to do it for him.

The Chairman—The chair understands Mr. Cooper has handled 350 tons a day, and if that is so his experience would be valuable.

Mr. J. M. Cooper—We handled it with slings with this American hoist. It was not one of these boom hoists; it was a boom and a mast, and we just simply had a spreader that we put our slings on the carts, loaded the cane in and hooked the slings on to the hooks when the cart drove up, and we did not keep that cart there a minute; just as soon as it hoisted up the cart cleared—did not take over half a minute. We threw a couple of slings in the cart and sent it off. If we had to hold these carts there one, two or three minutes you were loaded from the carts to the cars. We did not leave our slings under the cane. We simply had a couple of pieces of 2x6, about 6 feet long, I should judge, and put up an incline a little to each other, with a ring in the middle hitched on four wire hooks, two hooks on each piece, and a little piece of wood on one side with a trip, and one sling around the car just to give that a little pull.

The Chairman—When you speak of handling 350 tons a day you mean in the ordinary working day?

Mr. Cooper—We mean every day during the grinding season. We handle seventeen cars of cane a day at the hoist. We take in cars from twenty-five to twenty-six tons. Seventeen cars of twenty tons would be 340. We work convicts.

The Chairman—That is a day of twenty-four hours?

Mr. Cooper—From about 5 o'clock in the morning until as long as they could see. There were certain times when work was done in the dark, when the cars would go out there from the sugar house—there were some men loading the cars; and I dare say they some times went to loading before 5 o'clock, and we worked frequently from twelve to fourteen hours a day. We could load a car easily inside an hour with twenty to twenty-five tons.

We usually take these large cars on the night watches mostly. What we could not make up with small cars we made with the large cars. The small cars we unloaded by hand, and the large cars we dumped with a Spelman hoist. I believe in this cane carrier feeder that Mr. Kemper spoke of, and had the intention of putting in that chain because when we would dump these large cars, and it was raining, or the weather was wet, some times the cane took a slide and would sweep the small car off the track; and I wanted some device that would keep the cane from sliding down on the carrier and still feed it.

The Chairman—Your inclined feeder fed with iron hooks?

Mr. Cooper—I am speaking of an inclined feeder to the carrier with these large cane sheds.

The Chairman—Do you handle the cane in standard cars?

Mr. Cooper—Yes, sir.

Mr. Bodley—Will you please state, Mr. Cooper, what the Spelman hoist cost?

Mr. Cooper—The two I got cost \$3500 each for the machine; that is, aside from the cane shed; and it is an expensive cane shed building. The track for the lift is fifty feet from the ground. I have built two of them; in fact, furnished a plant for Mr. Burgières, and I would like to say that I have been on Messrs. Dugas & LeBlanc's, and I watched the Mallon machine there feed the cane carrier, and I have given this thing considerable attention; and while I don't like to admit it, I frankly will, for I think they put their cane on the carrier with just about the same amount of labor that it took to pick up the straggling cane on a plantation railroad with the Spelman hoist. I watched the thing all day, and watched closely; and I can not see why it can not make the cost of feeding cane carriers as low as $\frac{1}{2}$ cent per ton. Mr. LeBlanc, of Messrs. Dugas & LeBlanc, was there at the time, and he said it did not make any difference whether they put on 600 or 1000 tons, it was all the same to them. I mention this, as I do not know why it is that the railroads will not allow you to let down the sides of cars. There might be something in the way. Mr. Mallon can explain that; but wherever you can get the cane in cars, and let the sides down, I don't think there is anything else that can touch it.

The Chairman—Mr. Cooper, is not the hoist you speak of, is that not used with sliding side cars?

Mr. Cooper—That is what it is made for. When the Gramercy factory was built, they went to the railroads to find out if they would allow the car sides to be let down; they objected to it, and Mr. Spelman was determined to have something to unload his cars with. If he could have gotten them to consent to let down the sides of the cars, why there would have been some other arrangement to unload the cars besides the Spelman hoist.

Mr. Bodley—Will you please state if it is necessary to have this large cane shed 60 feet high to use the Spelman hoist.

Mr. Cooper—If you have any less it is going to be troublesome. Now the first shed they built was (I think that was 45 feet 6 inches) that was at Gramercy. The next shed was at Shadyside and that was 38 feet; and then they furnished plans for us—the Link Belt people did—that was 35 feet; and we found that it was too low. In fact, we got large wheels, large diameter wheels and put on that Spelman hoist to raise it up, because our chains would not dump the cars at Cunningham's unless we pulled the bottom very high and hit the shafts of the hoist, and we broke a number of shafts. We concluded that was too expensive and we put on larger wheels. The track the hoist runs on is 50 feet from the ground.

Mr. Bodley—What was the entire cost of the Spelman hoist, including the cane sheds, with the hoist in it, at Reserve?

Mr. Cooper—The cane shed plant, with the hoist in it, and whole apparatus, was something like \$13,800.

The Chairman—Including the building?

Mr. Cooper—Yes, sir. It is a very elaborate building; but then that was put up late last fall and on short time; it was rather an extravagant price. They had quarantine difficulties and other obstacles. I might say that the price might be shaded somewhat, notwithstanding all that, although I like to see that kind of a place go up.

The Chairman—Was not the building, or the frame rather, steel?

Mr. Cooper—Timber frame. The timber was furnished here from Slidell; it is all dressed lumber. The sugar house has a steel frame; the mill proper has a steel frame; but the cane shed has a wooden frame. It is an exact pattern of Cunningham's, in Texas, except that it is higher.

Mr. Dymond—Some railroads object to carrying cane in cars with the sides down.

About the only one I know of that does allow it is Governor Warmoth's on the other side of the river, and they handle that railroad to suit themselves; and they are putting up arrangements to let down the sides. They have some way of lashing the sides.

Mr. Cooper—There is no trouble about making the cars so the sides will stay up; but what they are afraid of is that it will be like putting a pipe through the levee, that people will become careless, and that it will result in a train being wrecked. I was told by a superintendent that the sides might be dropped provided they put sticks in the pockets, independent of the hinge arrangement.

The Chairman—In reference to the system which Mr. Bodley describes in his paper, I would like to ask him to kindly give us the direct results obtained so far from that system.

Mr. Bodley—In 1896, Mr. Mallon invented this feeder. We put one up at Messrs. Trosclair & Robichaux's, on Bayou Lafourche, and spent most of the time up there trying to perfect that machine. When it was perfected and made satisfactory to ourselves, as well as to these gentlemen, we left the sugar house and placed an order for two feeders, two cane carriers, and also an order from Messrs. Dugas & LeBlanc. These machines have worked through the grinding season and have given entire satisfaction. We have letters from these gentlemen to that effect. Planters from this State, and also from the Hawaiian Islands have visited these plantations; and they said while they found some things to criticize in this country as not being as good as in the islands, that they found a great many machines in this country a great deal better; but they had no criticism whatever, no fault whatever to find with this Mallon cane carrier feeder. They worked very successfully, there is nothing about them to get out of order. If anything should possibly fall into the mill or onto the carrier, it goes through the mill without causing any trouble, iron tooth about five sixteenths of an inch thick. It passes through without giving any trouble at all.

I do not know what I can add more than that the machine speaks for itself.

We could have placed a great many last year, but thought best to await the success of the three we had established. These machines are capable of handling 300, 600, 900 or 1200 tons, as at Dugas & LeBlanc. You can add that the price for the 300, 600, 900 or 1200 tons, whether the planter grinds 1000 tons a day or grinds 500 tons or 400 tons, will be repaid by the machine itself the first year.

Colonel Zenor—You stated that it does not require any extra hands to straighten the cane on the carrier. I have never been able to put cane on the carrier, lay it on the carrier by hand without having some one there to straighten it.

Mr. Bodley—Nevertheless the fact is that these different plantations that used three machines did not have anybody to straighten it.

Colonel Zenor—They have the Krajewski crusher.

Mr. Dymond—With the exception of Trosclair & Robichaux I don't think they have.

Mr. Bodley—The crusher regulates this. In the machine feeding the carrier regulates this.

Mr. McQuiston—In the case of Mr. O'Neill's hoist, that he has given us a testimonial about, that he could have handled 400 tons per day for the same cost that he handled 277 tons, would say Mr. O'Neill is present and I would rather he speak for himself.

Mr. W. A. O'Neill—I had not prepared any figures—did not intend to have anything to say. I furnished Mr. McQuiston with letters prepared by my bookkeeper. I say there I handled 277 tons a day, while the expense of handling that 277 tons would have been the same if the apparatus had been worked at full capacity, which I figure to be about 400 tons. We handled the cane for four cents. I handled the cane back from the carts on table at a total expense of \$14 a day.

Mr. Churchill—That was your total expense for twenty-three hours.

Mr. O'Neill—Yes, sir; for twenty-three hours; we would run about twenty-three hours and take one hour to clean up. When I speak of handling 277 tons a day, I mean the average. I did handle at the rate of 555 tons, I think, in one day.

The Chairman—You are satisfied that the apparatus could handle 400 tons.

Mr. O'Neill—That is what I estimated the apparatus as being able to handle.

Mr. McQuiston—I would say that we do not ask for any royalty; all we ask is reason. These machines we sell for \$1500, erected. At the time we named this price we were a little uncertain whether we would come out whole or not, but we did come through all right, though the yellow fever scare affected us somewhat. We happened to have our man there, so we were not kept away on that account.

The Chairman—Do you furnish a machine for three, six and nine hundred tons?

Mr. McQuiston—These machines, Mr. President, are all of the same size.

The Chairman—When Mr. O'Neill spoke of a machine that could handle 400 tons, that is the one you refer to now?

Mr. McQuiston—Yes, sir; we only furnish one class of machine, and Mr. O'Neill has estimated its capacity at 400 tons. We think if it was strained a little it would do better; but we must take into consideration that he taking one and one-half tons and upward at a load. Now that machine will handle three tons at a load.

Mr. O'Neill—That is not estimating the capacity of his hoist. I take the ordinary loads that are brought here by our people. These carts will average more than one and three-fourths tons to the load—from one and a half to two tons when the cane is tolerably straight.

The Chairman—The machine will handle extra heavy loads as well as light?

Mr. O'Neill—A great many people ask me if the hoist has sufficient storage capacity. I stored around that hoist about 300 tons at one time without any trouble at all.

The Chairman—You use this storage room for your night cane, I suppose?

Mr. O'Neill—Yes, sir.

Col. Zenor—I would ask Mr. Bodley if the Mallon machine is run by a connection with the machinery already in the sugar house, or if it is necessary to have an extra engine?

Mr. Bodley—It is run by the machinery in the sugar house, by a sprocket wheel of about thirty inches.

Col. Zenor—Is run by the same engine that runs the sugar house?

Mr. Bodley—Yes, sir.

Mr. Cooper—What is the cost of this transfer—to transfer cane from carts to the standard-gauge cars? Although I have handled them I do not know what the cost is, and I would like to have that information.

Mr. McQuiston—We furnish the derrick, ropes, blocks—the planter can furnish the woodwork cheaper than we can—ropes, blocks, every thing complete, for \$125, and the horse-power that does the lifting will cost \$110. This is \$235 for the machine all complete with the exception of the woodwork. This transfer has the advantage of being able to use any sort of sling. You can use a rope sling, let it down into the cart, untie it and let your sling come out.

Mr. Bodley—Now, but one word in behalf of myself and the gentleman whose machines are sold here to-night, and that is, that whatever appliances are ordered by the planters, or whatever machine they expect to install this year, should be ordered early, because there is music in the air in the way of quarantine tribulations, which may come when warm weather comes. Our country friends, doctors and others are going to give us the same trouble that they gave us last year; and we certainly don't want a repetition of that. We have taken orders for twenty of these hoists,

and expect about two or three times that much, and we want to get our work done soon—not during the latter part of the summer; and I suppose the other gentlemen feel that way, too.

The Chairman—The chair understands you are willing to examine the different localities and see what conditions exist in each locality, so as to give the greatest amount of work for the cheapest amount of cost.

Mr. LeBlanc—I would ask Mr. Kemper, do you experience any trouble about breaking that feed of yours? What I mean by that is when you get one load close to the carrier, and you get another load, say thirty feet away, you have to keep two loads coming together.

Mr. Kemper—The way to obviate that would be to have another table.

The Chairman—The chair understands that Mr. Dickinson, representing the Lidgerwood Manufacturing Company, is present at the meeting to-night. We would ask Mr. Dickinson to state if he has any views to express on the subject under discussion.

Mr. Dickinson—I am very sorry that I did not know of this meeting until about three days ago or I would have had our model here. We have built a cane hoist and tested it thoroughly. I might say to the gentlemen present that they can see the same thing working at Chalmette in handling cotton. It is tested and is now handling 120 loads an hour, or two loads a minutes—pretty fast work. You can use that same device—in fact, three hundred are now constructed for the handling of various material. Messrs. Woodward, Wight & Co., will sell this for \$300, less hoisting operators, and you need not pay for it until you are satisfied. We will ship it to your plantation and allow you to use it in order to give it a trial; all that you will have to say is that you want it or don't want it after tested. I am sorry I have no model here tonight.

The Chairman—Will it handle cane from carts to cars?

Mr. Dickinson—What I am speaking of now is taking the place of transfers from carts to cars; plantation cars. Then we have what is called the cable hoist to handle and store at night. This is a simple cable hoist; probably most of you are acquainted with it. There have been about two hundred of them built for other purposes. It is simply a suspended wire rope and the trolley travels on the wire rope. It is simply a device that picks up the cane, picks it out of the cart and deposits it for feeding, or it might be deposited for night work; and when night comes it takes only one engineer, one man to pick up and deposit along under the cables. There is nothing experimental about it, and we would be glad to furnish any one with all the information desired, by applying to Messrs. Woodward, Wight & Co. They will be glad to furnish you with a descriptive catalogue.

The Chairman—The discussion has not gone over one-half the ground this subject deserves, and if it is thought of sufficient importance to deserve a second consideration, the chair would suggest that the same subject should go over until the March meeting, unless another subject is now proposed for discussion.

Mr. Dymond—While the members are digesting that matter, as to what to do, I would state that Col. C. Harrison Parker is present this evening, and desires to address the association regarding the exhibition at Omaha, and would ask the courtesy of Mr. Parker taking the floor?

The Chairman—The association will be very glad to hear from Colonel Parker.

Mr. C. Harrison Parker: Mr. President and Gentlemen—In the month of June there will be held in Omaha, Neb., the Trans-Mississippi and International Exposition. Next to Chicago I suppose it will be the largest exposition we have had in this country in recent years. The State of Louisiana proposes to have an exhibit there. The last session of the Legislature authorized the Commissioner of Agriculture to get up an

exhibit. The Agricultural Bureau, at a meeting a few days ago, determined to get up a first-class exhibit for the State of Louisiana, which will of course include the sugar exhibit. Professor Stubbs and Professor Morgan are in Omaha now. We had engaged 5500 feet of room for Louisiana, but there was some hitch about their rules and regulations; whether we could limit our exhibit or had to divide it into the horticultural building, mining building, etc., and scatter it. It may be necessary for us to put up a building there. Now, we desire that the Sugar Planters' Association should cooperate with us in getting up an exhibit of the sugar industry of Louisiana; not merely a technical one, showing the different grades of sugar. That does not represent the great industry of this State. We thought that if we had a photographic display there—nothing speaks like a picture—of the sugar industry, photographs of the large manufacturing establishments—first-class sugar houses—the people from the Northwest and the people of whole United States could look at a photograph of the Miles Sugar Refinery for instance, and form some idea of this vast industry who might otherwise know nothing of it. With this end in view we wanted to get up a number of photographic views. I merely mention the Miles place as one that is large. We want a number of photographs of the large sugar manufacturing establishments in this State; scenes of field work, typical sugar houses, sugar house scenes and such like. I had a talk with Mr. Dymond some time ago in the fall, but the yellow fever interfered somewhat with the inauguration of this matter; but it was then very late, and too late to get any field scenes, which we desire to get. We think that the Louisiana Sugar Planters' Association should take hold of this matter and get up such an exhibit, with photographic displays of Louisiana and the sugar industry of Louisiana. Of course the pictures would be returned to those who furnished them after the exposition was over, and they could have them to adorn their rooms, or for any future exposition. Colonel Dymond has stated there are a number of views already in existence that we could have copied or enlarged. Of course they will have to be photographs of considerable size in order to show well, and these could be supplemented with other views that would be taken in the spring. We desire to ask this association, therefore, that they undertake the work of getting up a photographic display of the sugar district of Louisiana. Professor Stubbs and Professor Morgan will be the commissioners there; they would be here to-night, but they are in Omaha. I was one of the committee to set the matter in motion. We simply ask that this association take hold of the matter and help us out.

The Chairman—You have heard the remarks of Colonel Parker. Mr. Dymond, have you anything to suggest, to offer as to putting this matter into proper shape?

Mr. Dymond—I should think it would be wise to appoint a committee to take the matter up. There are certainly now in this city a very large collection of pictures made on the various plantations that, as Colonel Parker has just said, might be secured, and if these are enlarged it would make a very creditable display. Colonel Parker, I believe, is the commissioner of Louisiana.

In this connection I might add that the beet sugar industry of this country is looming up now rapidly. Many persons think their capacity in that direction unlimited, but in the matter of the sugar cane growers, that we are restricted geographically; that is not so nearly true as many people think, as these, our debates, in this association show. It has been urged here, and I believe correctly, that the Gulf States of Florida and Georgia and Alabama and Mississippi and Louisiana and Texas can supply 2,000,000 tons of sugar without any very serious strain upon their resources when the people shall be educated up to the

production of sugar as will come right along under the central factory system. It would seem desirable to show our friends North our resources in this direction, show the magnitude, show how we carry on our big sugar houses under modern methods—these very things we discussed to-night; show appliances of modern methods to the industry. I should think the right thing to do would be to appoint a committee. I don't want to make that motion; I have so much to do. With your usual courtesy you may be apt to name some of the "young blood"—Mr. Churchill, Mr. McQuiston, and one or two others who would doubtless be willing to put their shoulders to the wheel in various sections of the State and work the matter up.

The Chairman—A motion is now in order, providing for the appointment of a committee to take charge of the exhibit of the Sugar Planters' Association which is to be held at the Omaha exhibition—not the sugar exhibit, but the exhibit of photographic pictures of the sugar district of Louisiana.

A motion was put and duly carried that the chair appoint a committee to take this matter in hand.

Colonel Parker—So as to satisfy any gentleman who has any pictures to send I would state that Professor Stubbs will be there, and Professor Morgan. You all know these gentlemen, so you could feel pretty certain that any pictures presented would be certain to be returned to you. Professor Stubbs will have charge of them—you all know who he is.

The Chairman—If Professor Stubbs returns in time, in all probability he will be named one of the committee.

There being no further business before the meeting, a motion to adjourn was put and carried.

Meeting of the Sugar Cane Growers of Rayne.

A meeting of the sugar cane growers of Rayne was called at the town hall on December 24, for the purpose of organizing "The Acadia Planting and Refining Association." Hon. E. Daboval, Jr., stated the object of the meeting and demonstrated the necessity of increasing the cane culture in our section. In view of the low price of cotton and the absolute necessity of irrigation to insure a rice crop, it became apparent to all that a sugar house was an indispensable necessity in our town.

All to a unit were willing to increase their culture, to subscribe liberally toward the building of a plant and to guarantee to dispose of their cane to no other factory for three years, and to subscribe the sum of fifteen thousand dollars as an investment. The acreage of cane is now about 600 acres and next season 1000 acres would be sold to the factory.

This is a splendid opportunity for investors, and we sincerely hope that our home people and merchants will subscribe liberally to such an enterprise.

Offers have been made to build the refinery for \$30,000 and to deliver the same in running order, the capacity to be 15,000 pounds of clarified sugar every twenty-four hours.

Messrs. E. Daboval, Jr., and E. Eleazar are taking an active part in this move, and certainly deserve the help of our town people.

Another meeting was held yesterday at the town hall, an account of which will appear in our next issue.—Rayne Tribune.

Col. J. W. Barnett, of Shadyside plantation, was a guest of the St. Charles Hotel on Sunday.

FEBRUARY 19.

WEEKLY MARKET REPORT.

1898.

SUGAR.	February 12.	February 14.	February 15.	February 16.	February 17.	February 18.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Strict Prime	8 3/4 @ 8 3/4	8 3/4 @ 8 3/4	8 3/4 @ 8 3/4	8 3/4 @ 8 3/4	8 3/4 @ 8 3/4	8 3/4 @ 8 3/4	8 3/4 @ 8 3/4	
Prime	8 1/2 @ 8 3/4	8 1/2 @ 8 3/4	8 1/2 @ 8 3/4	8 1/2 @ 8 3/4	8 1/2 @ 8 3/4	8 1/2 @ 8 3/4	8 1/2 @ 8 3/4	
Fully Fair	— @ 8 1/2	— @ 8 1/2	— @ 8 1/2	— @ 8 1/2	— @ 8 1/2	— @ 8 1/2	— @ 8 1/2	
Good Fair	8 1/4 @ 8 1/2	8 1/4 @ 8 1/2	8 1/4 @ 8 1/2	8 1/4 @ 8 1/2	8 1/4 @ 8 1/2	8 1/4 @ 8 1/2	8 1/4 @ 8 1/2	Quiet
Fair	8 3/8 @ 8 1/2	8 3/8 @ 8 1/2	8 3/8 @ 8 1/2	8 3/8 @ 8 1/2	8 3/8 @ 8 1/2	8 3/8 @ 8 1/2	8 3/8 @ 8 1/2	
Good Common	8 @ 8 1/2	8 @ 8 1/2	8 @ 8 1/2	8 @ 8 1/2	8 @ 8 1/2	8 @ 8 1/2	8 @ 8 1/2	
Common	8 @ 8 1/4	8 @ 8 1/4	8 @ 8 1/4	8 @ 8 1/4	8 @ 8 1/4	8 @ 8 1/4	8 @ 8 1/4	
Inferior	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	2 1/2 @ 2 1/2	
Centrifugal.								
Plant'n Granulated	— @ —	4 1/2 @ —	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	8 1/2 @ 4	
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 1/2 @ 8 1/2	
Choice White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 1/2 @ 8 1/2	
Off White	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	8 1/2 @ 8 1/2	Firm.
Grey White	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	8 1/2 @ 8 1/2	
Choice Yellow	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	8 1/2 @ 8 1/2	
Prime Yellow	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	8 1/2 @ 8 1/2	
Good Yellow	4 @ 4 1/2	4 @ 4 1/2	4 @ 4 1/2	4 @ 4 1/2	4 @ 4 1/2	4 @ 4 1/2	8 1/2 @ 8 1/2	
Seconds	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy	— @ —	— @ —	— @ —	— @ —	— @ —	— @ 14	— @ —	
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ 13	— @ 9	
Strict Prime	10 @ 11	10 @ 11	10 @ 11	10 @ 11	10 @ 11	— @ 11	— @ 9	
Good Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 11	— @ 8	
Prime	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 10	— @ 7	
Good Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 9	— @ 6	
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 8	— @ 6	Strong.
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 7	— @ 5	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 6	— @ 5	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ —	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	15 @ 16	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.10 @ —	Firm.
Standard A	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	3.98 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	10s. 10 1/2 d.	10s. 10 1/2 d.	10s. 10 1/2 d.	11s. 0 d.	10s. 0 d.	11s. 0 d.	11s. 0 d.	Firm.
A. & G. Beet	9s. 8 d.	9s. 8 d.	9s. 8 d.	9s. 8 3/4 d.	9s. 4 1/2 d.	9s. 1 1/2 d.	9s. 1 1/2 d.	Firm.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.58	
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.58	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.20	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Strong.
Rosetta Ex. C	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.08	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Feb. 9	Tons	206,188
At four ports of Great Britain to	Feb. 5	"	100,500
At Havana and Matanzas to	Feb. 9	"	53,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING FEB. 18, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	596	37,742
Sold	596	85,918

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO FEB. 18, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	18,778	1,231,624
Sold	18,778	1,189,969
Received same time last year	28,997	1,118,153

FEBRUARY 18.

WEEKLY MARKET REPORT.

1898

RICE.	Feb. 12.	Feb. 14.	Feb. 15.	Feb. 16.	Feb. 17.	Feb. 18.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, 50 bbl.....	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	1 50@4 00	2 00@4 25	Firm.
CLEAN, Fancy.....	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@6	
Choice.....	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	
Prime.....	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	
Good.....	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	
Fair.....	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	Firm.
Ordinary.....	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	
Common.....	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....	2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	
BRAN, 50 ton.....	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 00@10 00	
POLISH, 50 ton.....	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	16 00@17 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING FEB. 18, 1898.

	SACKS ROUGH.	BBLs. CLEAN.
Received.....	9,788	—
Sold.....	10,785	2,649

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO FEB.
18, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BBLs. CLEAN.
This year.....	419,896	8,083
Last year.....	872,198	5,971

Sugar.

Sugar was in good demand at the end of the week, and all offerings met with a ready sale. Although the receipts are large for the season the sales are in excess of arrivals.

Molasses.

No open kettle goods in first hands. Centrifugals strong.

Rice.

The rice market was steady, both for rough and clean goods, at the end of the week and the demand was good. Offerings are rather restricted and prices well maintained.

Talmage's Rice Market Report.

"Everything is booming," both domestic and foreign; the former on easier terms, the latter at a fractional advance. Medium grades in each are at a nominal parity, but the former, as heretofore, commands the major patronage. These styles are not only popular, but merchants seem disposed to "throw them down," knowing that they must be relied upon to furnish the main supply until new crop. Certain grades of domestic are receiving lively attention, being far and away cheaper than any possible import, namely, prime to choice Carolina and ordinary to fair Louisiana. Advices from the South note rapidly depleting stocks, but as planters and others interested in the coming crop must needs find the "where-withal" as against expenditures for preliminary preparations, seed, etc., there are free offerings and reasonable ideas in the matter of values. Cables note enlarging inquiry for all styles, and extreme prices being paid for selections suitable for the United States. Stocks of latter are insignificant, much smaller than at any time past ten years. There has been a rather confident looking forward to lowering values with the incoming of the new crop Burmah, but such is gradually being given up. The natives are not disposed to sell such at

figures current on old crop and are likely to stick to present tactics until at least the height of season places the control of arrivals beyond their power.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 50,800 barrels; sales, 48,465 barrels. Demand steady at former range of values. Forward supply less than at equal date last year.

Talmage, New Orleans, telegraphs Louisiana

crop movement to date: Receipts (rough), inclusive of amount carried over, 472,100 sacks; last year, 546,150 sacks. Sales, cleaned (estimated), 82,425 barrels; last year, 92,508 barrels. Good local demand all styles. General call still confined to ordinary and fair grades. Market steady.

Mr. B. J. Morey, of Patterson, was registered at the Commercial during the week.

The Cuban Sugar Crop of 1897-98.

Statement of Exports and Stocks of Sugar January 31, 1898, and same date last year.

Exports.	1897.			1898.		
	Sacks.	Hhds.	Tons.	Sacks.	Hhds.	Tons.
Havana.....	7,951			12,744		
Matanzas.....	4,960			24,532		
Cardenas.....				48,195		
Cienfuegos.....	21,309			69,460		
Sagua.....						
Caibarien.....						
Guantanamo.....						
Cuba.....						
Manzanillo.....	200					
Nuevitas.....						
Gibara.....						
Zaza.....				4,470		
Trinidad.....						
	34,420		4,763	159,401		22,060
Stocks.	1897.			1898.		
	Sacks.	Hhds.	Tons.	Sacks.	Hhds.	Tons.
Havana.....	162,305	154		22,640		
Matanzas.....	20,671			122,838		
Cardenas.....	30,943			93,630		
Cienfuegos.....	21,834			47,456		
Sagua.....	1,592			8,593		
Caibarien.....	1,340			5,208		
Guantanamo.....	500					
Cuba.....	735					
Manzanillo.....						
Nuevitas.....						
Gibara.....						
Zaza.....						
Trinidad.....				3,620		
	239,920	154	33,310	303,985		42,069
Local consumption, 1 month.....			38,073			64,129
			3,500			3,500
Stock of old crop, January 1.....			41,573			67,629
			31,960			1,515
Receipts to January 31 at all the ports.....			9,613			66,114

NOTE.—Bags, 310 pounds; hogsheds, 1550 pounds; tons, 2240 pounds.

Havana, January 31, 1898

JOAQUIN GUMA.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address **LAWRENCE M. DOOLEY**, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address **L. D.**, 4301 N. Peters street, City. 2-8-98

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address **T. D.**, 1129 Orange street, New Orleans. 2-15-97

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address **PETER SANDERS**, 130 North Franklin street, New Orleans. 2-10-98

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address **AMMONIA**, P. O. Box 57, Jackson, La. 2-10-98

WANTED—SUGAR HOUSE ENGINEERS, chemists and sugar boilers; none but first-class and experienced men need apply. Address **E. H. DYER & CO.**, 310 Byrne Block, Los Angeles, Cal. 2-9-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; the best of references. Address **EXPERT**, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address **F. SINES**, 2433 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address **WM. BERGER**, 1815 St. Antoine street. 2-5-98

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care **PLANTER**. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address **WALTER DAILY**, 2620 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT EN-gineer; can furnish good references; six years' experience. Address **G. HENNINGSSEN**, 518 Louisiana street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address **JOS. J. LANDRY**, Convent, La. 2-3-98

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address **J. S. COLLINS**; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address **JOS. SERRANO**, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address **JOHNSON**, 5535 Magazine street, New Orleans, La. 1-21-98

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address **GOTTLIEB KOELLE**, 1938 St. Louis street, city. 1-21-98

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address **U. WEBER**, Central, La. 1-20-98

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. **MCCRACKEN BROS.**, Eola La. 1-20-98

WANTED—POSITION AS STORE OR BOOK-keeper or other clerical position on sugar plantation; by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address **MAX**, P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address **R. J. W.**, 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address **A.**, care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR AS-sistant engineer; has had fourteen years' experience and can furnish first-class references. Address **F. O. W.**, Lareauville P. O., La. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address **H. L.**, 618 St. Louis street. 1-18-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. **GEO. H. DOUGLASS**, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTA-tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address **BOX 73**, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address **A.**, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address **ENGINEER 2020**, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address **P. O. BOX 422**, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address **P. S.**, 130 N. Franklin street, city. 1-13-98

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address **W. C. B.**, 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address **A. D. LACY**, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address **COMPETENT**, Box 649, New Orleans. 12-21-97

WANTED—POSITION AS ASSISTANT MAN-ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of **A. Koehritz**, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address **E. O. W.**, Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address **A. B.**, 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address **C. LAURENT**, Whitecastle, La. 12-28-97

WANTED—ENERGETIC AND STRICTLY SO-ber young man wants position as manager of small store on plantation, on salary or commission; gilt-edge reference as to ability and character. Address **B. B.**, 1925 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address **W. T.**, care Daily Journal, Plaquemine, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt edge references. Address **B. B.**, 1925 Bayou Road, New Orleans. 12-17-97

WANTED—A FIRST-CLASS PAINTER, AC-customed to country and plantation work, would like to obtain work either by the day or contract. Address **BRUNO**, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had ong experience, and can furnish good references. Address **R. V. H.**, 129 Decatur street, New Orleans. 1-15-98

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898. at living salary. Address **BOB**, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and Lapides parishes and some New Orleans merchants. Address **SMITH**, care this office. 12-16-97

WANTED—POSITION AS CLERK IN A COUN-try or plantation store; not afraid of work. Address **CLERK**, Postoffice Box 69, New Orleans, La. 12-23-97

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address **E. C. MARSHALL**, Cheneyville, La. 12-7-97

WANTED—By a young lady of several years' ex-perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address **XY Z**, care **PLANTER**. 12-3-97

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address **B.**, care of *The Chief*, Donaldsonville, La. 12-3-97

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address **J. E. W. DAVIS**, McCall, La. 12-4-97

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address **HUSTLER**, 1100 Dante street, New Orleans, La. 12-8-97

WANTED—A YOUNG FRENCHMAN, 24 years of age, desires a position in a sugar house or mechanical construction shops. Has had experience as mechanic in France and in the most important sugar houses in Cuba. Address **M. N.**, this office. 10-23-97

WANTED—A POSITION ON A PLANTATION as centrifugal man, by a first-class sugar drier. Address **H. A. WHALEY**, care of **Wm. Johnson**, 7000 Magazine street, New Orleans. 9-28-97

WANTED—HOSTLER FOR MEDWAY PLAN-tation, Bayou Salé, St. Mary parish. Apply with reference to **D. J. KER**, North Bend Plantation, Foster P. O., La.

WANTED—A POSITION; A HANDY MAN ON a plantation; can furnish recommendation. Address **WM. J. TONGLET**, 413 Royal street, New Orleans, La. 11-8-97

WANTED—A POSITION AS SUGAR WEIGHER or clerk or fireman; can fill any with competency. Address **A. J. CASTIN**, 1529 Mandeville street, city. 10-20-97

WANTED—YOUNG MAN OF 26, SOBER AND industrious, wants a position as assistant sugar boiler or chemist of some sugar factory or estate in Cuba, Hawaii or Mexico; have had fourteen years of practical experience in manufacture of sugar. Address **SUGAR**, Waggaman P. O., Jefferson Parish, La. 11-7-97

WANTED—BY A RELIABLE MAN OF EXPE-rience, a position as sugar maker; well up in the management of central factories. Address **SUGAR MAKER**, No. 1716 Baronne street, New Orleans. 10-14-97

WANTED—A POSITION AS SUGAR DRIER by a competent man, who can furnish good references. Address **ALPHONSE CARRILLOUX**, Detention Camp, Waggaman, La. 11-1-97

WANTED—A POSITION AS A SUGAR MAKER; willing to do his own polarization; has had eighteen years' experience; can furnish reference. Address **ALFRED ROUSSEAU**, this office. 11-4-97

WANTED—A POSITION AS SUGAR DRIER; has had eighteen years' experience; can furnish good reference. Address **M. MONTEGUDO**, 437 English street, city. 30-10-97

WANTED—A POSITION AS CARPENTER AND millwright; understand putting up shafting and setting up machinery; twenty years' experience. Address **GEORGE HINMAN**, Franklin and Josephine streets, New Orleans, La. 11-1-97

WANTED—BY PARTY OF SEVERAL YEARS' experience in sugar manufacture and refining, a position in Louisiana or Mexico; have superintended work in both refineries and factories; can give testimonials from all former employers. Address **H. S. R.**, Box 1386, New Orleans, La. 11-9-97

WANTED—SITUATION ON SUGAR PLANTA-tion or saw-mill, as boarding-house keeper; long experience; can furnish best of references. Address **COMPETENT**, care **LOUISIANA PLANTER**, New Orleans, La. 11-17-97

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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No. 9.

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AND

SUGAR MANUFACTURER,

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ical, Political and Commercial.

EDITORIAL CORPS:

W. C. STUBBS, Ph. D. W. J. THOMPSON.
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5 inch.....	23 50	58 75	88 15	117 50
6 inch.....	28 00	70 00	105 00	140 00
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Grafted Sugar Cane.

Some years ago considerable interest was exhibited in the sugar growing world from the statement that the successful grafting of sugar cane had been effected in Brazil. In fact among the sugar canes imported from Brazil for experimentation in this country by the then Commissioner of Agriculture General Ledue, there was one variety known as *enzirta* or grafted cane. The writer grew this cane for a number of years, but finally abandoned it, as it seemed to have no particular merit, and was led to conclude that this cane, which was grown with a considerable number of other varieties, had been misnamed or misplaced in some way and was no longer true to its origin as intended by the manager of the Botanical Gardens at Rio Janeiro.

We are now led to take up this matter by the news that comes to us from Queensland that the successful grafting of sugar canes has been accomplished there. Short sections of the cane have been split in two, avoiding any injury to the bud or eye, and two varieties then placed in apposition by being closely bound together with straw have germinated and have produced plant canes the first year, which have seemingly possessed each the characteristics of the eye from which it germinated. The ratoons, however, the product of the following year, seem to have exhibited unusual changes, and from these canes have been produced subsequent plant canes which have maintained the peculiarities of the ratoon canes.

The attention of Charles Darwin, the great naturalist, was called to the Brazilian experiments years ago, when they were first made, and he expressed his disbelief in the possibility of creating any new variety of cane in this way. The experiments in Queensland would seem to indicate that the success has at last been realized and that it has become possible to combine the good qualities

of two canes by grafting in the way we have named.

The cane planters of the tropics are very much interested in this matter from the fact that during recent years their canes have been largely attacked by various diseases that have diminished their yield in sugar. They are therefore anxious to secure canes which shall not only be high in sucrose content but also high in disease-resisting capacity.

It may turn out that the expectations of the possibilities from grafting sugar cane now held in Queensland may not be realized, but the recent experiments were initiated by Mr. A. Ulcoq, manager of the Queensland National Bank, in the town of Mackie, and it is thought by the editor of the *Mackie Sugar Journal*, from which we secure some of our data, that the experiments are a positive success. The recent success in obtaining new varieties of sugar cane directly from the seed which was considered impossible twenty years ago when these experiments were made in Brazil, renders the matter of successful grafting of sugar cane perhaps less important now than then. Every one, however, interested in the sugar industry will take a keen interest in this matter, and will hope that the Queensland experiments will be continued until definitive results shall have been established.

Chemical Economics.

Since Fahlberg, at the Johns Hopkins University, Baltimore, while experimenting with coal tar, under the directions of Professor Remson, discovered the now famous saccharine, it has been hard to say what would come next. Saccharine as an industrial discovery was long preceded by the discovery of alizarin, the coloring principle of madder, in anthracene, and its successful manufacture, including all that we now know as aniline dyes. Now comes the

report from Germany that they have finally discovered a method of producing indigo from coal tar, and doing this on an industrial and economical scale, although the exact process is still held as a trade secret.

The science of chemistry is making wonderful progress in industrial directions, but in producing saccharine there seems to be a missing factor that prevents saccharine becoming true sugar. The chemical product, while 200 times sweeter than true sugar, is thought to be injurious as an article of food, and has thus far no industrial use except as an adulterant. It may be found that artificial indigo will not give the beautiful blue colors that have made indigo the queen of dyestuffs for centuries.

Cane Versus Cotton on the Teche.

A recent article in the *Lafayette Advertiser* says that the five Teche parishes produced this last year a hundred thousand bales of cotton and of course have had to unload it onto a four-cent market. This large production of cotton was not undertaken because of any love for that staple, but because of the difficulties incident to the transportation of any other crops. The channel of the Teche has become shallow and obstructed by the neglect of the federal authorities in keeping this important stream open. Were reasonable care taken of the stream navigation could be maintained the year round far up the country even into St. Landry parish. The whole country is thickly settled with an industrious and economical people.

Most of these would become cane farmers were there reasonable chances of the easy sale and transportation of their cane crops. The great central factories on the Teche are now buying all the cane that comes to them, but the farmers of the upper Teche have had but little if any opportunity to sell their cane crops at remunerative prices, being so largely shut out from the competing factories by the bad condition of their natural means of transit, Bayou Teche.

The vast territory of the upper Teche and of the prairies to the west will unquestionably in time become the centre of the Louisiana sugar industry. When this comes the Teche will be improved any way. But why not hasten that coming day and give those now mourning

inadequate facilities some hope of brighter days in the near future, free from the phantom of 4-cent cotton and full of promise of fields of waving cane to be transported up and down the Teche to hungry factories anxious for thousands of tons of sugar cane daily. Dredge out the Teche, remove the obstructions in its channel, and these dreams will be realized.

Mr. H. Octave Colomb.

Another veteran among the sugar planters of Louisiana has passed from the scene. From the Donaldsonville *Chief* we learn some particulars concerning this distinguished gentleman, Mr. H. Octave Colomb, one of the sugar planters of the old regime and most prominent in sugar circles a generation ago.

Mr. Colomb died February 4, in the parish of St. James, at the residence of his son, Dr. Brooks A. Colomb, aged 76 years. He came upon the scene when the Louisiana sugar industry was still young; when the horse-mill was the chief means for juice extraction, and when the German sugar refiners kept their houses locked to prevent inquisitive English travelers learning then how to make the white loaf sugar for which Germany was famed; when the whole crop of the State was but about what our largest planter made last year.

Mr. Colomb was a progressive sugar planter. He was the first one in the State to use bone-black, that essential of modern sugar refining. Mr. Valcour Aime, who became prominent as a sugar refiner afterward, went to Mr. Colomb's to see the use of it there before adopting it himself.

Mr. Colomb was one of the first to experiment with Chinese labor after the war, and found it quite unsatisfactory. He finally sold out in Louisiana and went to Florida and became an orange grower, but his native Louisiana attracted him home again, and he ended his days near the scenes of his youth. The old creole days are gone, but memories of Colomb, Bringier and Tureaud will continue in the years to come.

The Crop Situation.

The heavy rains of last week were followed throughout the sugar district by a period of clear, cool and dry weather which enabled all field work to

be actively resumed and planting operations have made substantial progress everywhere. Seed cane is generally reported to be in good shape and the indications so far point to a bumper crop for 1898.

Look to Your Corn Fields.

Editor Louisiana Planter: While the corn crop is of great importance to the South, it is extremely doubtful if its value is as fully appreciated as it should be. Judging from the fact that the corn of a majority of the Southern States is usually largely short of their requirements, it might be inferred that it has been found cheaper for the farmers of the South to grow more of other products than of corn and with part of the proceeds of these crops to go West and buy cheap corn and meat there.

Close observations made by the writer in the West and in the South lead to the conclusion that corn may and can be produced as cheaply if not more cheaply in the South than in Illinois; providing the proper steps are taken to accomplish this end. Corn, like most other plants produced from the soil, has requirements which must be supplied from the ground on which it is planted. Among these may be stated a deep, rich, disintegrated soil, and with this good drainage. With these we have the foundation to begin with. The next step to be taken in time is that of planting. Good seed is of the utmost importance. When ready to plant see to it that the land is in proper tilth and suitable condition for the purpose. When laying off the rows for planting have them no more than four feet apart if the corn is to be drill-planted. If checked the rows may be laid off four feet one way and three feet the other, dropping the corn in the centre of the check. In tile-drained land there will be no need of throwing up any ridge to plant on.

As soon as corn is above ground, old enough to work, begin with a cultivator, breaking and stirring the soil near to and around the young corn. If the soil has been properly prepared previously no deep ploughing will be required to make the crop. Use riding cultivators and do surface cultivation only. The drier the season the oftener the soil should be stirred, and the better it will be for promoting the growth of the pecans and the yield of grain. We must remember that the greater the yield of corn per acre planted, the less will be the final cost of the corn per bushel.

Finally, let me say that it is high time for the Southern farmers to learn and better appreciate the actual value of corn on the farm or plantation. Europe is beginning to learn the merits of American-grown Indian corn, and as European demand is sure to arise for it, the price of Western corn is bound to increase just as the price of wheat has increased.

J. CABOT.

Col. Gus A. Breaux, of Lafayette, La., was a guest of the Royal during the Mardi Gras period.

Mr. S. H. St. Martin was a guest of the St. Charles during the Carnival.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: Since last Saturday morning, when a heavy shower took place, we have had dry weather, and again the work of cane planting is in full swing on those plantations where the seed has not all been put into the ground. According to the reports of a number of planters and managers, much of the seed that was first put in windrow last fall has been found to be defective, but that windrowed later in the season has proved to be as sound as a dollar generally speaking. Taken by and large, the prospect in this respect is very favorable, and there is no reason to alter earlier predictions of an immense sugar crop for 1898, provided, of course, the elements are propitious throughout the year.

Last Saturday's rainfall measured .65 of an inch, according to Local Observer Park's official gauge, and the mercury in his thermometer descended to the freezing point one night this week. A heavy white frost covered the earth Tuesday morning to an extent that almost resembled a light precipitation of snow, yet the following day the temperature was not only springlike in its balminess, but not far removed from summery. If there is a section of the country that can furnish more kinds of weather in a given space of time than South Louisiana, I am not familiar with it.

The drying of second sugars was concluded at the Belle Alliance factory of E. & J. Kock on Sunday, and while no figures are as yet available, it can be safely said in a general way that the output of the hot-room has been entirely satisfactory. Similar work is in progress at a number of other factories, and no complaint relative to the yield has yet been heard.

Mr. E. H. Barton, the owner of the fine St. Emma plantation, was in town Wednesday, and reported the planting of cane proceeding in good fashion on his place. His first seed was indifferent in average quality, but the rest has been all that could be desired. Complaints of shortage of seed are heard from some quarters, but Mr. Barton will have all he needs to put down at St. Emma.

It is pleasant news to learn that the sudden attack of illness of which Capt. John T. Nolan became a victim was over almost as suddenly as it came on, and that his condition no longer gives his friends anxiety.

Mr. J. E. W. Davis, a worthy and competent gentleman, has obtained the position of timekeeper and assistant manager under Mr. G. L. Menuit on the Gramercy Company's Mount Houmas plantation, and it may be taken for granted that he will give his employers entire satisfaction in the place.

Mr. J. L. Foxwell, formerly a manager on Mrs. J. S. Webster's Point Houmas plantation, this parish, is now filling a similar position on Messrs. Gaskins & Rolling's Pike's Peak plantation, in St. James, where his capacity and experience will no doubt be productive of much profit to the owners of that fine property.

The river is falling again, and apprehension

on account of unfinished levees is at an end. The highest point reached by the flood was twenty-four and one-half feet above extreme low water mark, or a half foot below the danger line at Donaldsonville. The gauge reading Wednesday morning was 21.4, a decline of 3.1 feet from the highest point attained.

Poles for the electric light wires have been received at Donaldsonville, and within the next sixty days the new system of illumination should be in operation in the progressive capital of progressive

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been variable since last week, during the latter part of which plenty of rain fell, and the work of planting was temporarily suspended. On Monday and Tuesday mornings there were heavy frosts and thin ice, and the ends of the young plants that were induced to peep out by the delightful warm weather were nipped. So far there has been nothing to hurt the cane, and with a continuation of the favorable season the stand will be as good as that of 1890. At this writing the work of planting has been resumed, and those who have finished planting are off-barring and scraping fall plant, breaking out old stubbles and putting their corn land in shape. Everything in the sugar line is going along handsomely, and several planters told us that they had less difficulty to get advances this year than ever before. In fact money is offering at reasonable rates on all sides, and plenty willing and anxious to lend it at 8 per cent. interest per annum, on a simple pledge of the crop, while others are putting it out on notes unsecured either by pledge or mortgage. One old gentleman who has had a number of loans out for several years told the writer this week that he believed he would have to go to California to put his money out at interest. In some of the acts of pledge now going on record the commission for selling sugar is fixed at 2 per cent. instead of $2\frac{1}{4}$, as heretofore.

Mr. Simon LeBlanc, of St. Gabriel, was at Plaquemine last Monday and reports everything in good shape in his neighborhood. Mr. LeBlanc will have fully 1000 acres in rice this year.

Cane planting was finished three weeks ago on the Magnolia plantation of W. W. and J. A. Ventress, of Sunshine, but at Granada, the fine property of Messrs. Ventress & Locke, two and one-half days' work yet remained last Tuesday.

A meeting of the planters whose properties are drained by means of Bayou Bourbeaux was held at Plaquemine last Saturday, when it was agreed to have Parish Surveyor J. C. Kleinpeter make a survey and estimates for increasing the drainage capacity of said bayou. It is thought that a contribution of \$1 per acre will accomplish the desired end, and there is no doubt that the investment will be returned fivefold each year.

Mr. Gabriel A. Haydel, one of the inventors and manufacturers of the Danos & Haydel stubble shaver, died at his home at Cannonburg last Tuesday night.

The river after reaching the base of the new levees has begun to fall rapidly, and no immediate danger is feared.

IBERVILLE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: Two unusually heavy rains last week caused a cessation in planting operations, and those who still have cane to plant are fretting over the vexatious delay. As a rule the planting will be shorter than anticipated, as, owing to sprouted cane, the amount planted to the acre has been increased so as to make allowances for defective canes. When I say "shorter than anticipated" it does not follow that it will be shorter than last year, for many put down more seed than usual, and will possibly exceed the acreage planted last year. Others it must be confessed will fall short of that measure.

Improvements seem to be the order of the day. Albemarle will in all probability increase its milling capacity. Oakley speaks of putting in large mills. Mr. E. L. Monnot will probably desert his train and put in a vacuum pan. Daily we hear rumors of sales, either contemplated or made. The confidence in sugar seems to be fully justified now by its strong market position, and, with a few years of favorable crops and prices, a diminution in the rate of interest is bound to follow. There is a large amount of money in the country, the showing of the different banks being very favorable as compared with the same time last year. A notable improvement in the price of plantations sold, as well as a spirited demand for this property, show that we have emerged from the despondent conditions so characteristic of the sugar interests for one or two years. The foundries and machine shops are trying to get their contracts in early to avoid any possibility of a return to the demoralizing conditions of last fall. Our rice planters are putting in a large crop of this important cereal, and seem confident that there is money to be made in rice at the present prices. These two interests of Louisiana employ a large number of people, and involve the circulation of a tremendously large capital yearly, and the success of the rice growers and cane planters means the success of the whole of South Louisiana.

The question of the coming railroads still evokes discussion. But no locomotive so far disturbs the serenity of Assumption. Just now with good boating water the question of railroad subsidies to be revived with the approach of low water. Many boat loads of coal are being brought in on the present rise. This stage of water a few years ago would have been considered dangerous, but thanks to the work done on the levees, no one is yet apprehensive.

Assumption will be well represented at the Carnival, many of our people having taken advantage of the Mardi Gras season to put in an appearance.

Perhaps a word as to advertisements from a correspondent will not be untimely now. I hear of many inquiries for machinery, both new and second-hand, and parties wishing to

effect sales would do well to let their friends know what they have for sale and the prices. A large lot of machinery every year is kept over to rust and wear out because possible purchasers do not know that it can be bought. At the present a few short "ads" in THE PLANTER will be productive of numerous sales.

The present cool weather and clear skies will soon enable our tardy planters to finish the planting of the cane. Stubble saving seems to be the order of the day, and some few are trying a wee bit of corn as a feeler. Work is well advanced for the season. So far the stubble crop is perfect and the temptation to save a large amount of second year stubble will be hard to resist. Of course the stubble crop is by no means absolutely safe, but the prospects were never better.

A very pretty wedding was that of Mr. Melancon and Miss Emily Chauffe. The best wishes of the numerous friends of the bride in Assumption follow her to her new home.

Mr. L. N. Folse, a native of Assumption, has just purchased the Texas place, in Iberville. Mr. Omer Templet will be with him to assist in the management of his new acquisition.

The condition of the roads in Assumption is a menace to the Christianity of those who are forced to use them. Our police jury has determined to have the roads worked by the parish and the success of the system is soon to be tested. It must be remembered, however, that their condition at present must be taken as a mitigating circumstance. MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: The heavy rains at intervals during the month have proved exceedingly unpropitious, and in consequence the field work has been very much retarded, and much of it done when the land has been too wet, at times even on the well drained sandy lands. Last week when the soil was becoming dry enough to plant well, and planting was in full operation, without any warning of the coming rain, on Thursday there was another downpour which again partially flooded the fields and effectually put a stop to field operations for the balance of the week. Another rain during the last of the week so saturated the soil that the land is not dry enough yet to do efficient work.

The unpropitious weather has so retarded cane planting that planters will be late in seeding the acreage for corn, which is unfortunate, as the early planted corn generally ears the best. The retarded corn planting necessitates the later working to the detriment of the cane crop, which should receive all the attention possible from the first of May until the crop is laid by in the latter part of June or first week in July, when the crop should receive the last working if good results are anticipated.

The ratoons and fall plant cane, which were beginning to mark the rows well in places, are again scorched by heavy frosts, which will retard their growth.

The rainfall, exceeding five and one-half inches in two weeks, causes one to con-

plate the possibilities of a dry March, and for that reason undue haste should not result in rough planting of either cane or corn, as the crops may suffer in consequence.

Last week the wind was cyclonic on the lower Little Caillou, when the house of Mr. Authement was demolished and the inmates injured, and outbuildings elsewhere damaged.

Considerable lumber has been delivered, and extensive alterations are to be made in the dredgeboat in Bayou Black, and some little time will elapse before work will be resumed. When the changes are made it is expected that the boat will be much more efficient than formerly.

Wednesday of last week was fine and cool in the morning; Thursday heavy rains with thunder; Friday cloudy in the morning and fair later; Saturday heavy rains during the day; Sunday fair and cool, also Monday; Tuesday a heavy frost in the morning, and Wednesday favorable.

The official weekly weather report from Schriever is as follows:

	Temperature.	Rainfall.	Sunshine
February	14.74.5	48.8	50
"	15.77.0	42.7	100
"	16.77.7	44.3	100
"	17.70.5	49.0	.87
"	18.65.0	57.4	1.94
"	19.79.6	59.5	.75
"	20.70.5	46.2	.75
	73.5	49.7	.57
			3.56

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The past six days did not bring to us as favorable weather as we have heretofore enjoyed. The heavy rains that have fallen from day to day have rendered farm work almost impossible throughout the entire parish. Our previous good weather offered the farmer splendid opportunities for preparing his land, which a great many of the more progressive ones improved. Many of them are through planting cane and are now ready to put in their corn crop. Your correspondent took a trip last Friday on the steamer Why Not down Vermilion river, in company with Mr. L. Sokoloski, a very successful cane planter of this parish, and we were very much surprised, indeed, to see that the planters along the river were so well advanced with their spring work. Every plantation passed showed signs of get-up and hustle; these evidences, together with the bloom of the maple and the bursting bud of the oak, were unmistakable signs of approaching spring.

The rice industry is still on a boom. We have been reliably informed since our last week's report that the Vermilion Developing Company, or the Gueydan Canal Company, has already let the contract for building the extension to their canal referred to before in these columns, and that the parties who have contracted to do the work furnished a \$50,000 bond to deliver the work by a certain stated time. Mr. Kapling, manager of the company, is now in New York for the purpose of placing the order for the pumping outfit. This will be the largest pumping plant in the State, and on account of the size of it and the very short

time allowed to manufacture and put it in place the company through their manager, Mr. Kapling, is having some trouble to get the order accepted. The rice crop in that section will be more than doubled this year, and with the certainty of water the yield will be three times that of last year, which was according to the Gueydan News, 85,000 sacks, or over 94,000 barrels, if we allow 180 pounds to the sack. The Hall & Slutz canal, in lower Vermilion, is progressing favorably, and those gentlemen are renting, leasing or buying all the lands in the neighborhood of their canal that they can get, said leases to run for not less than five years.

Mr. J. N. Foutz, a prominent rice planter of the Gueydan section in West Vermilion, was married on last Saturday, 19th, to Miss Myrtle Cord, an accomplished young lady of Bancker, ten miles south of Abbeville. The marriage ceremony was performed at the residence of the bride's father on the Pecan Grove plantation fronting the river, west bank. The contracting parties proceeded at once to their future home in West Vermilion, where they carry the good wishes of their many friends for a long and prosperous life.

Mr. W. S. Nilson moved with his family into the old Perry house just south of town on the Vermilion last Friday. It will be remembered that Mr. O. M. Nilson, brother of W. S., bought this place a few weeks ago for the purpose of erecting thereon a central sugar refinery. Mr. Nilson will put the place in thorough repair this year and will plant it to cane next.

Mr. J. Henry Putnam, of the Rose Hill, returned from a trip to New Orleans this week.

Quite a number of our principal business men are attending the carnival this week; among them are Elise Wise, Gus. Godchaux, A. J. Godard, Eraste Mouton, L. J. Feray and F. V. Landry.

Mr. Martin Bagley, of the Ramsey refinery, is in New Orleans this week on business.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: Planting and preparations for planting are progressing as well as the nature of the weather will permit.

A decidedly heavy storm of rain and wind passed over this upper country on the morning of the 19th inst. Rain fell in torrents for the space of two hours, accompanied with an unusual display of lightning, heavy thunder and strong gusts of wind, uprooting trees, blowing down fences, etc.

Late in the afternoon of the 19th, after the storm clouds had drifted away to the south, the wind changed to the north, growing colder during the night. On the morning of the 20th there was a light frost. The wind still blowing colder during the day and night forced the mercury down to the freezing point on the morning of the 21st, with thin ice covering the water in exposed places, followed on the morning of the 22d with a heavy frost and ice. But the cold blast of wind which has been blowing down upon us since the 19th has taken up the surplus water from the ground very fast, thus benefiting the planters by permitting them to

start their forces to ploughing by Monday noon of the 21st, on front lands having sandy soils. The all-important work of cane planting is still going forward.

Seed cane seems to be at a premium. The demand for it is steadily increasing.

I find a number of small farmers who have succeeded in obtaining only enough seed cane to plant but an acre to cane. They are thankful for that much to plant and cultivate—to grow seed for planting and increasing their acreage during succeeding years.

We hope that as the future continues to grow brighter capitalists will come forward and invest their means in the construction of much-needed sugar factories; great enough to work all the cane which may in future be produced in the Red River parishes.

During the early part of last week a few of our foremost farmers having a light soil planted a few acres of corn. The most of it I think was planted for forage purposes, but should the weather become warmer and remain fair corn planting will commence in earnest on many places during the last days of this week and following next week. The object sought for it seems in planting corn so early is to get it up and worked at least once before cotton is to be planted; the latter requiring much more care in preparation of the land, as well as care in details to planting seed and afterward in its cultivation.

I find that along with all that is now being done, and the talk of cane-growing, there are those who now begin to wonder why it is that more grass is not produced for hay-making purposes; and some, who are bold enough to advance the idea, that while we are working so hard to grow big crops of cane, corn and cotton, there is money to be made by growing varieties of grasses suited to climate and soil.

A farmer friend of THE PLANTER's correspondent, while experimenting last season by planting sugar beets, relates that he was very agreeably surprised at the results which he obtained—not in sugar making, but in feeding and fattening beef cattle, milch cows and hogs, and says: "I shall surely plant sugar beet seed again this season. The beet is very easy to grow; the yield is immense, and I shall attempt growing two crops, the first early in spring, the second later, to come off in October."

And so it is, by such little attempts, by way of experiments, we come to learn the value of plants and their several uses. ERIN.

St. Martin.

Reports coming from different parts of the parish indicate that cane acreage will be considerably increased this year. Next year enough cane will be put into cultivation to fully justify the erection of one or two refineries here. A central refinery will no doubt be erected on the corporation lot next year. With this increase of cane, there will of course be a corresponding reduction of the snowy staple.—*Valley of the Teche.*

Southwest Louisiana Streams.

The following graphic pen picture of streams in this God-favored spot is by Miss Sally Todd,

the talented sister of David Todd, Esq., and will be read with interest.

After crossing the Atchafalaya at Morgan City, passing westward on the Southern Pacific Railroad, the run is through country admitted the richest in the United States. One emerges from a tropical forest, at this season, a *tierra caliente* like that described by Prescott through which the Spanish under Cortez advanced, after embarking for the conquest at old Vera Cruz.

One leaves behind the tall cypress and gum festooned with mosses and is ushered into a country of unlimited horizons. The spears and flags of the occasional marsh lands passed have given place to the broad blades of cane and the nodding plumes of maize—all in endless rank and array.

The Teche is perhaps the most picturesque of Louisiana streams. It runs between low sloping banks, and for hundreds of miles giant live-oaks stand at intervals along its course. Its waters are only occasionally visible from the windows of the flying train. The steamers plying these waters with long streams of smoke trailing behind and the schooners, with their white sails, seem to make their way into the interior through the fields of cane.

The effect is most singular, and ships and train and steamers all appear moving on a great level ocean of green.

The mists and clouds rolling up from the gulf are piled against the denser atmosphere over the land like mountains marking the line of coast. The sea breeze coming in puffs brings us a message of the freshness that lies in the depth of our summer sea.

A journey by steam up the Teche, on which are situated so many beautiful homes, is a delightful experience. The hospitality of the sugar planters to the occasional tourist on the bayou is a substantial adjuvant to the romance and enchantment of the trip. Nowhere in my travels have I ever seen a tree to compare to the live-oak on the Teche. Nothing can excel the symmetry of the green lawns sloping and rolling back from the banks of the bayou in slight but beautiful undulations. The grass so green, the oaks so overspreading, forests so rich, skies so clear and blue, and the stream, whispering the gaunt traditions and romantic histories which it boasts, are spells to hold the love of these dwellers in a land where summer stays till spring returns.

Passing on to the prairies of the further west the view seems to be more and more drawn out—the expanse here and there interspersed with small groves of trees dotted like islands in a great sea.

Lake Tasse is a very beautiful sheet of water two miles wide and three miles long, in the upper portion of Iberia parish. The fishing in this lake is fine, the water clear and fresh, as it flows from springs which burst from the bottom of the lake. It is a beautifully improved country.

Further west is the lovely bayou Parc Perdu, or Lost Park, along which are some of the prettiest groves and forests of the country. Proceeding westward we come to the Vermillion river, which runs parallel to the Bayou Teche, from which it is separated by about

twenty-five miles of prairie lands. It is also a lovely stream, which rises in Central Louisiana and flows through a country of gently swelling and sloping hills, until it debouches into Vermillion bay, about twenty miles below the town of Abbeville. This is a picturesque little town situated upon the banks of the stream. Here cane, corn, rice and cotton grow in the fullest luxuriance—the crops are uniformly good and the harvests abundant.

Lake Peigneur, or Joe Jefferson's Lake, is a fine body of clear, fresh water, about one and a half miles wide and two and a half miles long. It also abounds in fish—trout, perch and sac-a-lait, a kind of bass. It is situated near the station called "Bob Acres" (suggestive of Joe Jefferson), on the Abbeville branch of the Southern Pacific Railroad, in the western part of Iberia parish. Here Mr. Jefferson comes to enjoy occasional rests. His quaint, wide veranda home is built among queer hills that rise abruptly from the level prairie. The wooded bluffs of these high lands are beautifully mirrored in the clear depths of the lake. There are several hundreds of acres of beautiful woods about the Jefferson home, and some of the deep, sleepy hollows are reminders of Irving's legend of Rip Van Winkle and his rambles among the dells of the Catskills. The people hereabouts love to talk of Mr. Jefferson, and say that he sometimes still wakes the echoes with a pigeon wing and a joyous hello. "May he live long and prosper."

One of the finest chances of an enjoyable excursion is a trip into Vermillion Bay from Abbeville. A steamboat goes out frequently and runs down the bay to Southwest Pass. But it is worth while to sail around this remarkable bay, stopping where there is a white sandy beach, or under the hills of Cote Blanche or Grand Cote, which rises sheer from the waves to the height of a hundred feet or more. Here is a chance to enjoy salt waves and sunsets behind castles and domes and minarets of silver and gold.

Here are also great fishing and hunting and crabbing grounds, where squirrels bark at you from the trees and the neighboring planter comes into camp to take an eye-opener in the morning and to tell that there were bear in his field last night. Truly this is a country for sport and a hale, hearty time!

We breakfast on fish and squirrels and dine on courtbouillon and venison and sleep soundly, lulled by the splashing tide.

But looking out on the moon-lit waves to-night I am thinking of Lafitte and his pirate crew, who used to drop anchor in this very bay and then go out to the balls in the country where they swaggered and waltzed with their swords on—the envy of the Cadian swains, long, long ago.—*New Iberia Enterprise.*

Mr. J. B. Babington, manager of the Promised Land plantation on the lower coast, spent a few days in the city recently taking in the sights and sounds of the Carnival.

Mr. R. P. Lesassier and Mrs. Lesassier, of Killona, La., were in the city on a visit during the past week and registered at the Hotel Royal.

FOREIGN LETTERS.

Berlin.

BERLIN, February 7, 1898.

Editor Louisiana Planter: The week under review has been so far the worst in this most abnormal winter. The usual dampness changed into a downpour of rain, so that the rivers threatened to overflow the land in different parts of it, and people watched with great anxiety the different freaks of the weather. Fortunately, after heavy storms the rains ceased, a sudden cold set in, and finally some snow fell, thus showing that after all the winter exists not only in the almanac. Any way it is high time that a change took place. Quite apart from the possibility of inundation, the constant moisture commenced to cause the winter cereals to rot in the field, and it is to be heartily desired that the light frosts we are now having will keep on for some time to come, and that, to protect the sowings, a tolerably thick layer of snow may be spread over the country. At this period of the year, when the campaign is over, the meteorological conditions are generally of little account. However, with their present abnormal character it must be feared that their influence on the soils will be felt later on in anything but a favorable way. In the non-German part of Europe the weather has been also wet and springlike, but the former, in general, in a more moderate degree than in this country. The more the season is advancing the more the interest of the sugar world is directed to the extent of next beet sowing, but the rumors afloat on the subject do not admit of any definite opinion whether there will be increase or decrease. There is some hesitation on both sides—the manufacturers' and the farmers'—which is added to by the raising of the bounty question. In this respect I must correct a statement made in my last letter, which, however, was given on the very best authority. The bounty conference, which was to meet in Brussels about the 15th of February, is said to be postponed for two months on the ground that no definite base for the negotiations has been arrived at between Germany and Austria on one side and France on the other side. This does not look very hopeful with regard to the ultimate result of the conference. The greatest obstacle to the abolition of the bounties is that almost all states need the money derived from the sugar duties and taxes. Could the latter be done away with, the bounties would not only disappear at a given moment, but the sugar growers would also be indemnified by a larger consumption stimulated by the cheapness of the articles. Some governments begin to realize the correctness of such a view. In the Belgian Upper Chamber the Prime Minister, de Smet de Nayer, the other day, announced that the government has decided to reduce the tax on sugar from 45—the present rate—to 15. The intention to lower the taxes in order to favor consumption has been, by the way, already enunciated on the occasion of the last sugar law being presented to the Chambers, and the government has furnished the proof that they meant business. The reduc-

tion, as mentioned above, would, if approved by the Chambers, come into force on October 1, 1899.

There are few countries where cane and beet sugar is grown at the same time, exception made of course of the United States, which, however, should be classed among the great continents of the world. Well, among these few countries, Spain is one, and there are eleven beet sugar factories situated in the plain of Vega, near Granada. The aggregate quantity of beets worked by those mills is estimated from 150,000 to 200,000 tons, and the agricultural yield per hectare is 30 tons, and as a ton fetches about 4 pesetas (francs), the gross receipts are per hectare 1200 pesetas. On the other hand, the cost of cultivation amounts to about 800 to 850 pesetas, so that a net profit of 350 to 400 pesetas is obtained by the farmer, and it appears that under present circumstances the beet crop is the most profitable for the small land owner or tenant. Scattered in the other parts north and south of Spain there are still nine factories, and their beet working added to the above quantities, the entire mass treated amounts to 300,000 tons of beets, of which 27,000 to 30,000 tons of sugar are derived. The product is a crude sweet and in form of lumps delivered for consumption. The culture of the cane is limited to a small belt on the south and east coast, and it constitutes only 30 per cent. of the total sugar production of the country, whilst the beet furnishes 70 per cent. This latter percentage is very likely to increase in the near future and accordingly it is expected that Spain will soon be able to produce at home all the sugar consumed in the country. The tax levied in Spain is a roundabout sum assessed on a certain section irrespective of the actual production, a mode which has been of very favorable influence on the development of the industrial and agricultural interest.

In the Austro-Hungarian monarchy there is a fire insurance society of sugar manufacturers who have just published their annual report for the campaign of 1896-97. The receipts amounted to 509,472.73 pfennigs and the expenses were only 158,663.52 pfennigs, so that there resulted on the credit side a balance of 350,809.26 pfennigs. There have been seventy-five fires, which caused damages to the amount 143,270.41 pfennigs, of which sum however, 126,300 pfennigs were reinsured at other fire insurance companies; so that in fact only 16,970.34 were the expenses on that head. Of the above sum exceeding the expenses 7064.88 pfennigs was paid to the director, and the remainder of the balance, viz.: 343,744.30 pfennigs, was, as usual, handed over to the funds of the institute for pensions of sugar factory officers and employees, who in this manner are very liberally cared for in the case of infirmity or old age.

On the markets the favorable tendency noted at the end of last week prevailed also in the first days of the period under review, and it seemed that a decided improvement had taken place. Soon, however, such optimistic views turned out to have been erroneous, as a weak tone again pervaded the business, and prices lost the greater part of the advances obtained during the first part of the week. The

cause of this reaction is seen again in the tenders for February, which indeed have not been by any means as large as those in January; however in the present sensitive state of the market even a restricted amount of tenders is apt to produce a disturbance and to prevent at least an upward course, which otherwise would have taken place. The prices are still a little above last week's quotations, and may be marked down for actual 88 per cent. sugars at Magdeburg at 9.90 to 10.12 marks, and at Hamburg for delivery February 9.02 marks f. o. b. Refined continued flat and some grades closed with prices in buyers' favor.

ROBERT HENNIG.

Barbados.

January, 1898, has been one of the driest of Januarys. About one inch of rain for the whole month, and that so drizzly as to be scarcely beneficial; a hot sun, with a modicum of water, gives the conditions of the boiling pot, and it would be too much to expect young plantlets not to resent nature's unkindness during the latter part of January, and look a little hurt under the circumstances. However, no great harm has been done, nothing more than a few refreshing showers can quickly repair. Supplying is, of course, still necessary, yet thanks to the favorable planting season with which 1897 closed, the percentage of dead holes is much smaller than usual. The young crop may now well be left to the weeders and to the showers, while we turn our attention to reaping the sugary harvest. But just here there is a loose screw in our financial as well as agricultural arrangements—the annual harvest would be larger if, before turning our back on the young canes for the purpose of reaping the mature ones, we were able to make a provision for furnishing them at an earlier time with early plant food. There are financial difficulties we know in the way of obtaining supplies before the old crop is reaped, sold and accounts settled; but it would be in the interest of both merchant and planter to apply suitable fertilizers to the young canes before jointing begins, and that would be a few months earlier than at present obtains; such alteration in practice would undoubtedly be to the advantage of all concerned; for it is obvious that, if we wish to influence growth and bring the cane plant to perfection, our efforts must commence before canehood—as manifested by jointing—is entered upon. The nutritious effects of food are by no means so marked after commencement of the initial stage of maturity either in plant or animal.

February has begun cool and breezy, with a tendency to squalls and showers. These showers though light have already green painted the young blades, which, as we have said, were somewhat wilted by the hot suns of the past fortnight. The high wind blows away the clouds, or perhaps we should have had more soaking rains to strengthen the new and freshen and sweeten the old. On every hand mills are at work and seem inclined to settle down more and more steadily to the task of reaping. It is true the canes are by no means full ripe, but so far the sugar made is

remarkably strong and grainy; nor indeed is there any advantage in waiting. Later in the year winds become light, fungus more prevalent, canes drier, and the loss at the end is really greater. Estates with inadequate machinery can not afford to wait, while those with sufficient reaping power for their acreage can make haste slowly. The yield so far is encouraging. We have heard of five acres in Christ Church giving 10 hogsheads, and $1\frac{1}{4}$ acres of trimmings yielding $1\frac{1}{4}$ large-sized hogsheads, while in a neighboring parish only $1\frac{1}{4}$ hogsheads to the acre has been so far obtained. Differences of this kind are of course now due mainly to locality and to varying ripeness—factors that can not fail to influence the yield especially at this early date in an island whose soil varies from brick red to deep black, with all kinds of gradations—but take it altogether results are promising and lead us to expect a richer and purer juice than that of 1897, and perhaps, therefore, a large crop. Appearances are not always to be trusted and such sugar land as the red soil of St. Thomas can well be relied on, but we are sorry to record that as we pass along the roads of the parish the outside appearance of the ripening fields is not up to the St. Thomas standard, but it must not be forgotten that a short cane in the red soils of St. Thomas and St. Joseph is proverbially supposed to have as much sugar in it as a long one elsewhere. We prefer seeing the long ones.

The "fungus question" has gone to sleep, but the fungus itself, it is altogether too much alive, nor is it confined to Bourbon canes, as some fondly believe; the Transparents are beginning to show their susceptibility, and are attacked even when far removed from any possibility of contact with the Bourbon; even the phenomenon has been recently witnessed of a badly diseased bunch of Transparent canes growing in a spot of, and surrounded by comparatively healthy Bourbon. Evidently fungus is no respecter of canes and is quite capable of using any variety for its habitat. With reluctance we gave up the Bourbon to the fungoid ravage, abandoning it for inferior varieties—inferior because they lack, among other things, the uniformity of the Bourbon and its power of adaptation to various soils, a valuable quality which none of them can boast. And now it seems more and more evident that the mere change of plant is by no means all that is necessary for getting rid of the disease. There is something else, and that something is, we venture to suggest, to be found in the baneful custom of starving the young cane too much in its infancy and then suddenly overfeeding it at a time when it is entering upon the more mature stage of joint making. Health is the opposite of disease; underfed infants are most prone to the attacks of their enemies, and so, too, is it with young cane plants; nourish them at an early time, increase their stamina and resisting power and their healthy vigor will surely be found, in accordance with all physiological law, to minimize the effects of parasitic and other attacks. All that is wanted is a slight modification of existing methods which planter and merchant might easily arrange to mutual advantage.

A writer in the *Demerara Argosy* has been twitting us about our windmills and antiquated methods generally; comparisons are odious, but our kindly critic forgets that while the sugar crisis has dismantled over too many of his very expensive but not up-to-date plans of machinery, it has left our mills without an exception still standing and hopefully turning. Many of our planters at one time tilted against their windmills, and with doubtful luck succeeded in overthrowing several of them; it is true that they got about 2 per cent. more juice, which is about all the difference there is between a good windmill and the ordinary steam sugar work of our island, but not enough to recoup the heavy expenses of the change of machinery which too frequently led to change of ownership. Nor was the value of an estate increased by the transformation, as a comparison of valuation between steam and windmill properties will readily show. The fact is the progressives were born too soon, they exchanged their gold for iron to no purpose. Their steam plants have long been as obsolete as the most modest windmill, and will when the day and the market come be cleared away as old rubbish to make way for the modern factory and all the blessings to dawn with the new century. Windmills and muscovado have kept our island together during the severest economical strain to which it is possible to subject an industry, and notwithstanding detraction and criticisms, however wholesome and kindly meant, we have just cause to be thankful for our common process sugar which, our only customers the American refiners have been willing to buy—it is true at subsistence rates—but suppose that we had had no muscovado for our only market? There is a ruling Providence, and we acknowledge gratefully that we have been providentially saved by "windmills," "open kettles" and "muscovado," for the great day about to dawn of mighty factories and free markets.

There is a very solid opinion amongst us, not as yet popular, that sugar estates are kept too long resting away in the court of chancery. These chancery estates may be compared to horses that eat up their value in oats, for it too often happens that the receiver's account like the corrupting moth has slowly but very surely swallowed up a large part of the corpus, and that the junior investments have been filed away altogether. The evil is that the investors have no voice at all in the matter and must abide like dumb sheep while they are being so unmercifully and so slowly sheared by the scissors of red tape.

Mr. C. P. Bowen's bill, introduced on the 25th ult., to amend the chancery act so as to provide for the unreserved sale of estates that have been appraised and have remained in the court of chancery for more than four years, is a second attempt to deal with this important matter, and, although rightly ruled by his honor the speaker to be out of order, on the ground that the bill was substantially the same as its predecessor introduced by the honorable member earlier in the session and rejected by the House, yet the fact remains that the question is a burning one, involving in ruin not merely personal but public interest. It is one

which will not allow itself to be shelved, but will crop up again and again until the common sense of the community determines to deal with it in a business-like manner.

It is very pleasing to learn that Sir Julian Pauncefote's negotiations with a view to a reciprocity treaty between the United States and the British West Indies are very near completion. *Very near but not quite.* And there is the rub. Our crop is about to be reaped, a few cents more in the hundred-weight than obtained last year will make a mighty difference to us, and we have every reason to sincerely pray that this treaty, left to the last moment so far as it relates to our interests, will not be any longer unduly delayed. Hitching little West India to the United States is like coupling the tiniest Shetland to the biggest Clydesdale; but there is more in the matter; it is one of those moves which once made can not be unmade, and is evidence of the overwhelming desire of the Anglo-Saxon peoples, wherever they be, to draw closer the bonds of connection, for they gravitate together by the law of nature. The contemplated reciprocity treaty between the United States and the British West Indies will be but another, though small, rivet in the band that binds together Anglo-Saxons wherever they dwell. Wisely did Britain drop the Belgian and German treaties and denounce them in the interests of Canada. The foreigner is her avowed enemy, envious, because she is the mother of the Anglo-Saxon race, whose civilizing influence is opposed to their militarism and despotism. The recent moves on the political chess-board may well be called stupendous, there is no uncertainty about them. Interest and sentiment alike must compel Anglo-Saxons to stand four-square to avert, and if necessary to meet the threatening storm, and reciprocal trade relations, even on the small West Indian scale, is a counter move of the utmost importance. Reciprocity with the United States, reciprocity between Britain and her colonies, reciprocity between the Anglo-Saxon peoples wherever they dwell, reciprocity leading up to a truer union and freer trade is the one effectual answer to the European coalition whether it come insidiously with bounties, or openly with cannon.—*Agricultural Reporter*, Feb. 5.

Egypt.

The sugar industry in Egypt, which now produces about 100,000 tons per annum, is full of promise. Last year the greater part of the exported raw sugar went to America, the United States having taken about ten times as much as Great Britain, which stands second on the list. This is very curious, in view of the fact that Egypt did not enjoy the advantages of a reciprocity treaty with the States, and the shipping rates were high. The machinery and methods of cultivation in use in Egypt are (says *Sugar Cane*) fairly up-to-date. Some of the factories work with diffusion, which has a much better chance in Egypt than anywhere else, as the very dry climate permits the bagasse to be constantly used for fuel. A large new factory, erected by a Glasgow firm for a British and native company, is expected to be at work very shortly.

Demerara.

The weather of the week was fair, with light showers, one day a heavy one of half an inch, but, taken on the whole, light and highly favorable to the natural industries of the country. The sunlight greatly improved, though much cloud of a fleecy character prevailed from day to day. Darker clouds at times threatened heavy rain, but fortunately it did not fall; the light clouds modified the intensity of the sun largely, but did not very materially prevent it recording itself. Sometimes, however, when one issued out, trusting to the cloudiness, without a hat on, and the sky, cleared, as the sun sucked the clouds off, one felt that either our system of wearing artificial headgear was a good one or that our method of having our heads barbered was a bad one. Nature having provided its own means to meet the case, the former no doubt being responsible for the amount of baldtudeness that is so conspicuous a feature in theatrical and ecclesiastical meetings. Amongst human males St. Paul must have noticed this and its bearing on equality of respect, hence his injunction that women—their hair being their glory—should keep their heads artificially covered in all assemblies of the saints. The rainfall of this year, should it continue as it has begun, without unnecessary violence in the race, promises a great pull over that of the earlier months of last year. And a pull in the earlier part of a contest, if it is sustained, is a great advantage.

The weather has been delightful, and every one has revelled in it, feeling no discomfort—rather the height of comfort—and the capacity of a Trojan for work. Roads have dried and movement has become easy; agricultural conditions of work have improved, also to the extent of easiness, and crops have felt the relief and stimulus and are looking fine, where opportunities have been taken in fair hours or days to meet circumstances and keep them in fairly good trim. Where this foresight has been observed young crops are looking well, giving evidence day by day that they are striving for the end, or at any rate making the most of favorable conditions—or, as the old proverb puts it, making hay while the sun shines. The temperature too was most delightful—a mean of 83 deg. F. by day and at night of 74 deg. F. What could any one, to use an Americanism, if they had the “fixing” of their own weather, do or desire more than this? The sun reached a high level of a mean out of doors of 139 deg., the highest reached being 150 deg. There was, too, more dryness in the atmosphere, as shown by the wet and dry bulbs.—*Argosy, January 29.*

Trinidad, B. W. I.

The cane harvest in Trinidad promises well, according to reports received by last mail. The crop in the Naparima district is a large one, and a good yield is expected. In this district larger areas are now in cultivation than for many years before, and cane farmers have sprung up everywhere. The weather for harvesting has been exceptionally good, and the factories expect to get through grinding without any stoppages. The recent marked

increase in the price of cocoa at home has given much satisfaction to the agriculturists engaged in that industry. It is believed that the better prices will be permanent, as the consumption of cocoa in Great Britain is rapidly increasing.—*Chronicle.*

Demerara.

The *Sugar Cane* published recently a letter on clarification from Mr. Francis A. Frew, who has a close knowledge of the methods of sugar manufacture in Demerara. The letter contains the following passage: “The extra lime required for Demerara juice is probably due to the applied manures, as also the natural salts contained in the soil, making degrees of sweetness between Demerara cultivated cane and Brazilian cane (for instance), which is not a highly cultivated plant. The advantage is decidedly in favor of the latter, 12 deg. and 13 deg. B. being quite the usual thing, whereas in the former 10 deg. B. is considered fair. Brazilian canes have a low percentage of juice, and are not of the soft fibre as grown in Demerara; being mostly of a puny size and woody, due to poor cultivation, therefore the quality of the juice would not seem to depend on either of these conditions, and I have seen these canes coming to the mill weeks old still sweet and sound. If there is a falling off in the return per acre in Demerara, I should say it was due to a probable stint in the present application of manure on worked-out lands, also to former abuse of ammonia, more than to a falling off in field work, which used to be even overdone. The appearance of a luxuriant growth on his estate was the *sum-mum bonum* of a planter, as distinguished from the wants of a mere sugar manufacturer in the practical working of his factory, and I am of opinion that the system of close planting there, as well as other shovel work, without the former aid of a large manuring account, will have to be somewhat modified to suit altered circumstances, and the falling off in quantity made up for by growing for a more natural and sweeter juice.”—*Chronicle.*

The Belgian Exports and Imports of Sugar.

Hon. Bellamy Storer, Minister to Belgium, writes from Brussels January 21, 1898, that the official lists of total amounts of sugar exported from and imported into Belgium during the calendar year 1897 have just appeared. “The total exportation of raw sugar,” he adds, “including sugar in loaves having the same rights to ‘drawback’ as raw sugar, during that period, was 179,042,003 kilograms (394,787,616 pounds), of which 61,049,074 kilograms (134,723,208 pounds) are reported as shipped to the United States. The total exportations of refined sugar were 56,985,685 kilograms (125,653,435 pounds), of which 527,260 kilograms (1,162,608 pounds), all of which is described as ‘pulverized,’ went to the United States. During the same period, Belgium imported of raw sugars, including molasses, 11,935,160 kilograms (26,317,027 pounds), and of refined sugar, 81,093 kilograms (178,810 pounds).”

BEET SUGAR.

Eddy, New Mexico.

The party of sugar men, the Messrs. Uihleins and Nunnemachers, after a thorough inspection of all lands of both the lower and upper valley, left Eddy Saturday. Manager Goetz, of the sugar company, accompanied them as far as El Paso, where they spent Sunday. They then continued on their way to Milwaukee, expecting to stop en route at Kansas City. Before leaving they expressed themselves well pleased with their visit here. While primarily one of business, it was also made a most pleasurable one. Coming here the party stopped one day at Thurber, Texas, where they were most royally and heartily entertained by Colonel Hunter, in charge of the mines there, and Mr. Ward. Thurber boasts two bands and one of these greeted the gentlemen on their arrival. It is admitted that no mining camp in the world excels Thurber in the completeness of its arrangements.

But, more particularly about Eddy, it is decided that improvements will be made in the factory during the summer. The campaign is to be pushed vigorously. The factory will plant a certain acreage of beets, so there will be no uncertainty as to the quantity desired.

It is obvious, though, that much of the success of the present year depends upon the farmers. They should do their whole part, and may feel assured that the men who are identified financially with the factory will do theirs. Working unitedly and in harmony, the future of the beet sugar industry in the Pecos Valley is one of exceptional brightness.

Manager Goetz announces that the seed for this season's plantings should reach here within the next seven or eight days, being now en route, shipped January 1. The contracts for farmers will be ready by the first of next week.

The product of the last campaign has been almost entirely disposed of, there remaining in the factory only about one car load.

With the extension of the Pecos valley road, with the improvement and enlargement of the beet sugar factory, with the largest acreage of beets yet raised in the valley, with a large fruit crop and an exceptionally fine production of all agricultural products, with good prices for stock, bringing joy to the stockmen and trade and money to local merchants, with the establishment of a substantial and sufficiently capitalized bank, with one of the best commercial and social clubs in the southwest, with an impetus in the building line and the inauguration of improvements too numerous to mention, and with a steady flow of immigration here from the Northern and Eastern States—with all of these will Eddy have any cause for complaint against the year 1898?—*Pecos Valley Argus, February 18.*

Watsonville, California.

Beet sowing will commence near Gilroy next week.

Two or three inches of rain would be very welcome just now.

The situation is becoming critical in the country south of Salinas and in the vicinity

of Hollister. It looks like a dry year for these sections. When these districts are placed under irrigation, which will be before long, a dry year will have no terrors for the farmers.—*Pajaronian*, February 17.

Sugar Beet Seed.

The wide-awake local journals at the important beet sugar centres, Chino and Watsonville, are very properly calling attention to the fact that the strained commercial relations between Germany and the United States may endanger our supply of sugar beet seed, and that the only safeguard against trouble is to be no longer dependent upon foreign seed growers. We have often pointed out the fact that, wholly apart from any interference with the trade, there are sufficient reasons why the United States should develop a home supply. California has peerless adaptations for the seed product, as was recently quite fully outlined in these columns.

Why we should be selling trainloads of other seeds and buying trainloads of beet seed does not appear. There is certainly no natural difficulty about growing beet seed here; all that is necessary is to employ the same exact methods in determining the quality of mother beets and handling them as intelligently as is done abroad. On this subject the Chino *Champion* remarks:

"The very fact that we produce richer beets from the French and German seed than are produced in those countries from the same seed should be conclusive proof that the production of seed here would tend to breed the beets to a higher standard rather than to a lower one. Having the natural conditions to reach this result, it remains but for a skilled application of scientific principles, with a reasonable amount of capital, to make a success here of this cognate branch of the sugar industry."

That a beginning has been made in this direction at Lehi and Watsonville factories is pointed out by the Watsonville *Pajaronian*. We are not sure that the sugar factories are the concerns best calculated to develop these supplies. In Europe it is done by professional seed growers. One of our largest seed-growing firms is working at this matter.—*Pacific Rural Press*.

Soil Preparation for Sugar Beets.

Superintendent Granger, of the Utah sugar company, in a recent pamphlet, gives the following advice regarding the soil and its preparation for a beet crop:

"The sugar beet is a much hardier plant than is generally supposed, and will thrive in as great a variety of soils as will potatoes, corn or grain; but we find its most natural element is a rich, deep, loamy soil (not too sandy), that has good drainage, is loose and pliable, and will not bake or become hard during the growing season. The very best land is none too good for the sugar beet, and the farmer should always see to it that the very best available piece of the farm is used for this crop.

"Avoid poor land, land where sheep have been recently pastured, sandy land that will

'drift,' cold, wet, late land, and above all, alkali or mineral.

"In any of the above, seed will not germinate well, the plants will be scattering, and when harvest time comes what beets there are will be coarse, rank and grown largely above ground, and consequently unfit for manufacturing purposes.

"We lay particular stress on the avoidance of alkali land, for the impression seems to prevail that such land is good for sugar beets, even some growers asserting they have made a success of it. True, a fair crop of beets can often be grown on slightly alkali land, but they are not good for sugar, and the manufacturer does not want them. The nature of a sugar beet is to grow down like a carrot or parsnip, and with good soil and proper cultivation will grow, with the exception of a small crown, entirely under ground. Understanding this desire of the plant to go downward, we can readily perceive the advantages to be derived from deep ploughing and thorough cultivation.

"Plough the land deep, never less than ten and from that to fifteen inches, unless the top layer of soil is so thin that heavy clay will be turned up, in which case turn the good soil over with the ordinary plow, following directly behind with a subsoiler to loosen the objectionable ground to the desired depth without bringing it to the surface. The great importance of deep ploughing seems to be but little understood by many farmers, or if understood is not practised. But it must be applied to successful beet raising.

"In localities where there is freezing weather in winter, always plough the land deep in the fall.

"This is important, for after lying rough all winter and being subject to the influences of frost, snow and atmosphere, the soil is given new life and vigor, and if taken at just the proper time in the spring, can be worked down smooth and fine. When practical, do this early, so the weeds can get a good start before it is time to put in the crop; then just before planting, work the surface thoroughly with cultivators or harrows to kill the weeds and put the ground in smooth, excellent condition to receive the seed.

"The high altitude and dry winds of this intermountain region are so conducive to rapid evaporation that the soil dries out very quickly, more so when spring ploughed than fall-ploughed. For this reason and because the beet seed requires considerable moisture to germinate, we find it necessary to follow with the planter immediately as the land is prepared for the seed. Where the soil is light and loose (and most all fall-ploughed land is), roll or rub it down ahead of the seeder (but don't pack it), so as to get a firm, close bed for the seed to germinate in. If you are subject to spring winds that will blow the land about (which are very disastrous to small beet plants) break the light crust that may have been made by the roller by going ahead of the seeder with a very light harrow or other tool that will roughen the surface of the ground a little.

"Where fall-ploughing is not practised it is

usual to give a deep ploughing as early in the spring as the ground will permit and later, just previous to planting, a second one of from four to six inches deep."

Sugar Beet Seed.

Between thirty-five and forty cars of sugar beet seed have been and will be received at the office of surveyor of customs this winter, four of them being already in sight. This aggregates 1,000,000 pounds, of which 300,000 pounds are for Nebraska, and the remainder for California, Utah, Oregon and New Mexico. This entire amount is imported by Myer & Raapke, of Omaha, 90 per cent. from Germany and 10 per cent. from France and Russia, so through the Omaha custom house passes this entire amount, or 75 per cent. of the sugar beet seed used in the United States. The seed retails to the farmers at 15 cents per pound, and practically all that is used is imported.—*Omaha World-Herald*.

Sugar at Santa Maria and Elsewhere.

The Union Beet Sugar Company, a San Francisco corporation, has let a contract for the erection of a \$500,000 beet sugar plant to be located at Santa Maria, Santa Barbara county. A spur of the Pacific Coast railway is being built to the site, and another from the opposite direction, connecting with the Southern Pacific near Guadalupe. The farmers in the vicinity have contracted to plant the necessary amount of beets to supply the factory. E. C. Burr, of the Alameda Sugar Company, one of the most thorough-going beet sugar men, is to be manager of the concern. The latest improved machinery has been ordered, and the factory buildings will be of brick and iron. Work on the structures will begin at once. A large lake will supply the necessary water for the factory. Encouraged by the success of the Clarks, at Alamitos, Michael Cudahy, the Chicago millionaire, is considering engaging in the beet sugar industry, and, if his investigations prove reassuring, he will erect an extensive refinery. He has under consideration the advisability of transferring his Nadeau land of 3000 acres, near Florence, into a sugar beet ranch and erecting a factory equal in capacity to any in Southern California. The beets grown on this land this year in an experimental way are said to have averaged well in sugar percentages.—*Chino Champion*.

Mr. E. P. Munson and the Misses Munson, from Assumption parish, were guests of the Hotel Grunewald during the recent festivities.

The director of the celebrated Cora plantation during the past season was Mr. Otto A. Bellmann, and a better man for the position would be hard to find. Mr. Bellmann is a thorough student of the sugar industry in all its forms, practical, theoretical and technical, and has been in this country several seasons holding important and responsible positions.

Mr. C. J. Burton was the sugar boiler on Dunboyne plantation during the recent campaign. Mr. Burton was ably assisted by Mr. M. J. Bringler, and they turned out a splendid article of sugar.

Hawaii and the Sugar Trust.

What is described as an elaborate sugar scheme, possessing dramatic interest akin to the exploits of speculative Britannia in Africa, is the attempt which, it leaked out yesterday, is being made in certain quarters to turn Hawaii and Cuba into a theatre for an industrial propaganda, having millions at stake.

The sugar trust is said to openly avow hostility to Hawaiian annexation. Other sugar interests declare that this is a sham, that the trust wants annexation to get the product of Hawaii's cheap coolie labor into this country free of duty, and that the show of hostility to annexation is apparent rather than real. The trust is pictured as reaching out for a monopoly of the cane fields of Hawaii now and Cuba afterward. Visions are conjured up of immense sugar refineries rising in the cane fields on the Sandwich Islands which are to pour out the sugar for America at the comparatively insignificant cost due to low-priced labor. With this cheaply made product it has been presumed that enormous profits would be realized.

The trust is also represented as resorting to devices to encourage the belief that it is opposed to annexation. It is described as manipulating interviews with itself and protesting against Hawaii coming into the Union. Those who see only a sham in all this point to the dispatches coming from Washington as showing a part of the game.

The effect of all this, it has been pointed out, is to insure the confirmation by the Senate of the treaty on the theory that Hawaii will be a rich sugar rival to the trust. The Senate is supposed to be smarting under the sting of suspicion which connected it with the sugar bribery scandal and to be ready to seize an opportunity to vote against anything which the trust seems to want. The trust clamors lustily to keep out Hawaii. Therefore the Senate, it is expected, will let Hawaii in.

That would be the alleged hour of triumph for the sugar trust. Gradually it would go into the heart of the cane fields of Hawaii, where it would get the lowest priced labor in the world, and turn out refined sugar at a lower cost than the amount paid to the workmen in Brooklyn and Jersey City. With Hawaii a part of the United States there would be no tariff to meet, and it is estimated that the refined sugar, coming in by water transportation, the cheapest in the world, could be landed in San Francisco and New York for less than it costs to-day to refine sugar in Brooklyn.

The beet sugar interests are fighting annexation heart and soul. The beet sugar industry is only a few years old in this country. It has already become the leading industry in several parts of the West. It is believed to be full of promise. As an instance of its workings a tract of 53,000 acres in California, which could have been bought for \$10 an acre, was turned into beet fields six years ago, and to-day there is a public school there filled with 600 children, and the city of Chino has risen—a beet sugar city. Land there now is worth \$400 an acre. Wheat crops yield \$18 an acre; beets, \$65 an acre. Beet sugar men look upon the annexa-

tion of Hawaii as the death knell to their business. American labor can not compete against coolie labor.

Henry T. Oxnard, president of three of the largest beet sugar factories in the United States—two in Nebraska and the other in California—said yesterday:

"It is evidently the design and purpose of the administration, through the Secretary of Agriculture, to make it appear that the beet sugar industry is really not affected by the annexation of the Hawaiian Islands. I beg to differ with them entirely on this subject. In view of the fact that every producer of sugar in the United States, whether of cane, beet or sorghum, is absolutely and unrelentingly opposed to the annexation of those islands, it is hardly fair to say that those who have made this industry a life-long study are all wrong and that the administration, through the Department of Agriculture, which has only very recently come into power, should be able to decide this question for the sugar producers of the United States.

"Taking the statement of the expert of the Agriculture Department, Dr. Wylie, we see that the sugar produced in the United States costs about 4 cents a pound. It is a well-known and conceded fact that sugar is produced in the Hawaiian Islands for about $1\frac{1}{2}$ to $1\frac{3}{4}$ cents per pound. This sugar can be refined and transported to Nebraska and points in the intermediate territory at a cost of certainly not to exceed 3 cents per pound. The freight from Honolulu to Omaha does not exceed, or quite equal, $\frac{3}{4}$ cent per pound. If I were to add $\frac{1}{2}$ cent for refining, it would give us the cost to the producer of refined sugar, the cost laid down in Omaha, at 3 cents per pound.

"The figures of the factories of which I am president show that we have not been able to make sugar in Nebraska for 4 cents a pound, but, for the sake of argument, granting that the expert of the Agriculture Department is right, I will say that this sugar can be produced at 4 cents. We, therefore, find that the Hawaiian planter can sell sugar in our own market of Nebraska at a profit of 1 cent a pound to himself, while we would be manufacturing the same quality of sugar at a loss.

"The reason why this has not been done in the past is simply because so little beet sugar was made that the Hawaiian sugar did not lower its price to supplant it; but now that we are on the eve of producing our own sugar, it is apparent to any one who wishes to look at the facts as they are, and not as the administration wishes to have them appear, that the future development of the beet sugar industry is to be checked, if not entirely stopped within a very short time.

"Another factor which has prevented the Hawaiian sugars from being sold in competition with the home sugar product was the fact that a contract existed between these same Hawaiian planters and the sugar trust, whereby the Hawaiian planter received the full price of his sugar in the markets of the world (plus the duty, which, however, he did not pay into the treasury, but transferred to his own pocket). Consequently, the sugar trust, having paid the duty on the sugar to the

Hawaiian planter, could not afford to undersell the home producer; but a different condition exists since the first of the present month. The sugar trust has refused to renew its contract with the Hawaiian Island planters, and therefore the Hawaiian planters will seek a market in the territory lying west of the Missouri river in direct competition with the home producer; but the price of the coolie-made Hawaiian sugar will be lowered sufficiently to prevent the home producer from marketing his product in that territory, in view of the fact that American sugar can not be produced as cheaply as the Hawaiian sugar.

"I see it stated that Hawaii has reached the limit of its capacity and can not produce any more sugar than she is producing at the present time. This is absolutely false from the very best authority which I have been able to obtain, having sent out to the islands my expert for the purpose of finding out and reporting to me the possibilities of the sugar industry in those islands. The Hawaiian planters used the same argument when they were trying to get the treaty renewed some years ago, and asserted that 100,000 tons would be the maximum production of sugar in the islands. The past year Hawaii produced 250,000 approximately, which is 100,000 tons more than is consumed by the entire territory west of the Missouri river.

"We view the accession of those islands with dread, realizing full well that the conditions existing there make it impossible for us to continue a struggle with an industry which has had so much aid from our own government during the last twenty years. Had we received the same help for the next twenty years, we would not then be in the position in which we find ourselves to-day. In other words, Hawaii is a threat to the development of the beet sugar industry of the United States, the present administration notwithstanding."

In contradiction to the story that the sugar trust is seeking annexation, it is contended that there is every reason why it should not want Hawaii to come into the Union, as it publicly declares. The more free sugar there is coming into the United States, the better the opportunity for independent refiners to purchase the raw product and refine it in competition with the trust.

On the other hand, it is argued with equal force that the more free sugar there is coming into this country, the better it will enable the trust to dictate prices to foreign sellers of the raw product. With the products of cheap coolie sugar of Hawaii coming in free of duty the trust would naturally refuse to pay higher prices to the French and German exporter of the raw material.

Then, again, it is suggested the trust could more readily afford to buy out the beet sugar industry in this country and check any threatened rivalry than to undertake the vast project of erecting refineries on the Sandwich Islands to obtain a world's monopoly of sugar. To the end of buying out the beet sugar business, it is said the trust is already using some of its surplus millions.

Meanwhile the beet sugar campaign against annexation is now conducted along the one

line that the Hawaiian treaty is a sugar trust plot. This is the keynote of the contest being waged at the national capital.—*New York Commercial Advertiser*.

The Draining Pump at Makawell.

In answer to inquiries, Mr. O'Dowda, sugar boiler of the Ewa plantation, has been kind enough to publish in the December issue of your journal a letter relative to the method used in that mill for draining the vacuum pan coils and multiple effect, and in closing his article adds, "that if this plan were adopted by the diffusion process mills, their fuel bill would be much less at the end of the season." Now it is very evident from this latter sentence that your correspondent knows very little about the methods adopted by diffusion process mills, in draining apparatus working under vacuo; or it may be, as I have concluded, that Mr. O'Dowda takes the Ewa plant as it was when worked by the diffusion process and compares it with what mills are now working by this method. If so, then for his particular instruction and those interested in milling in general, I will take in comparison the methods adopted by the Hawaiian Sugar Company at their Makawell diffusion mill, and leave it to the judgment of those interested to decide whether the method adopted at Ewa is more profitable than that adopted here, or in general use on these islands.

The system employed at Ewa, is that of the coils draining into a container, which must necessarily carry a certain amount of water (condensed steam) and to which is attached at bottom the suction pipe of the pump. Here I claim, in the first place, a certain amount of steam is lost, the container acting as a surface condenser to tail pipes of vacuum pan, and in a like manner to the first vessel of the multiple apparatus, from the fact of this container having to carry a certain amount of water.

Your correspondent is probably under the impression that what steam is not being condensed in the coils of his pan, or heating surface of his evaporator, is being pumped back to the boilers in its original state. Now allowing that his steam is all condensed before it reaches the suction valve of his pump, what about the steam necessary to drive it? This raises the question, does the saving of a few degrees in the temperature of his feed water to the boilers (by being pumped back directly) pay for the cost of steam to drive the pump, leaving the cost of the pump aside, and the amount condensed by the water in container? I think not.

The supply of steam to the vacuum pans at Makawell is on precisely the same principle, as that at Ewa—i. e., a large reducing steam valve is placed near the pan inlet steam main, to regulate the "what is found locally to be the most economical pressure for use in the pan coils." To each coil is attached a drain pipe, fitted with an ordinary check valve, so that when steam is opened on any one coil it does not escape or return to any other on which steam has not been admitted. Each of the tail pipes is connected to a main pipe of sufficient area to drain all the coils when under pressure, and to this

main pipe is attached a steam trap, the dimensions of which for a 25-ton pan is only 18 inches diameter by 24 inches high, leaving a minimum surface for condensation of any steam that may leave the pan coils in a dry state. From this trap a discharge pipe is led into the hot well for supply to boilers, by the usual feed pump, and where the water from vacuum pans and first vessels of the evaporator maintains a temperature of 203 deg. Fah. I may here add that the top coils of our evaporator are drained in exactly the same way, but without the necessity of a check valve.

I am confident in saying that the Kealia people with their diffusion plant understand all about the saving of steam from drain pipes. With reference to Mr. O'Dowda's opinion, that 55 pounds pressure per square inch is the correct pressure to work the vacuum pan coils with, I may state that, in my opinion, this is a point governed entirely by local circumstances, such as length and size of coil, make of pan, etc., and can only be decided by actual experience. At the Hawaiian Sugar Company's mill our vacuum pans do not require more than 20 pounds pressure per square inch.

JAMES SCOTT,

Chief Engineer.

Makawell Plantation, Kauai, 23d Dec., 1897.

—*Hawaiian Planters' Monthly*.

Laborers in Hawaii.

The United States Consul General at Honolulu, in a recent report on coffee culture in Hawaii, speaks of the prevailing labor conditions of the islands as follows:

The prevailing labor is Japanese, though natives, Chinamen and Portuguese are employed. On one place I found two Germans employed at \$20 per month.

The universal price paid for Japanese labor is \$15 per month without board. In the Olaa district a number of Chinese are employed at wages ranging from \$16 to \$17 per month. I found the planters preferred the Chinese to the Japanese, because they were more tractable, and worked better without overseeing. The native Hawaiians, I am sorry to say, did not take kindly to working in the fields, although in the Puna district I noticed a number, their presence made more apparent by strains of the hula after dark.

The natives seem to work best on the cattle ranches and odd jobs which do not require continuous labor. The Japanese seem to be, so far, all that is required for successful coffee raising, though it seems to me that the more important work of plantings should be entrusted to the most faithful and intelligent labor that can be employed, even though double the present wages be paid. For this work the patient, painstaking, faithful German seems to me to be the best fitted. The Germans are natural gardeners and can be depended upon, as a rule, to do their work well. So much importance is attached to intelligent planting that it would be money well spent to pay even \$50 a month to a planter and feel assured that the plants had been set out in a scientific manner.

One phase of the labor question has not been

fully met yet, because the plantations have not begun to bear a full crop, and that is, where the labor is to come from at picking time. The ideal labor would be women and children at from 25 to 50 cents per day, and many dismiss the subject by counting on school children. I doubt very much whether there are enough children, favorably located, on the island of Hawaii to-day to pick next year's crop, even should the government change the scholastic year so as to bring vacation time during the picking season.

Mr. J. M. Horner, of Hamakua, has a scheme for obtaining Hawaiian labor at picking time, which I think highly of, especially as it emanates from one who has lived a long time on the islands and knows the native character, and because he is a man who, by his successes, shows that he gives intelligent thought to anything he undertakes. To fully appreciate Mr. Horner's scheme, it is necessary to understand something of the Hawaiian character. The native Hawaiians are kindly people, with a love for music, good fellowship, feasting and hospitality. Mr. Horner's idea is to invite a sufficient number of natives to a "laua," the native name for a feast, upon condition that they pick, during the day, a certain number of pounds of berries, for which a certain price will be paid, the evening being given up to feasting, dancing and gossiping. As the picking season varies somewhat, according to elevation, it is thought the people can go from place to place.

Mr. Harry Rycroft, of Puna, is trying an experiment which will appeal more to the practical mind, and, if successful, will not only solve the vexed question of picking, but some others. He has planted some cacao, which bears fruit in the spring; coffee ripens and must be picked in the fall months. His idea is to keep a force all the year round which, during the coffee picking season, will be sufficient to gather the crop. After that is done, he considers the same force will be necessary to catch up with the work which has been neglected during the picking season, such as weeding, etc., which will furnish sufficient work until the cacao crop comes on. He told me that he would be fully satisfied if the cacao paid the cost of marketing, because he would be fully repaid by being able to have labor which he employed the year round.

Our Interest in Hawaii.

The Hawaiian sugar bounty treaty of 1876 yields this country less than 12 per cent. of reciprocal free trade. From 1876 to 1884 the duty paid by all other imported sugar imported into the United States of the same standard of quality averaged 2.81 cents per pound. During the next six years the duty averaged 2½ cents. From 1890 to 1895 the duty was 40 per cent. *ad valorem*. According to the *Hawaiian Annual*, the recognized authority on custom matters, the free admission of its sugar to the United States market, while other foreign sugars were paying the required duty, amounted to a total gift or bounty to Hawaiian sugar planters of \$72,000,000 up to January 1, 1897. It is probable that up to the present time the bounty to this Hawaiian monopoly has amounted to \$75,000,000. In other

words, while this government would give no bounty to American sugar producers, it has paid out three-fourths of \$100,000,000 as a bonus to the Sandwich Island producers. Our farmers think that this thing has gone on long enough.

It is urged that San Francisco can not afford to have the Hawaiian treaty defeated, because she enjoys its carrying trade. How much does this amount to? For 1896 San Francisco has received 132,000 tons of Hawaiian sugar, while 75,000 tons were shipped direct to New York. At a rate of \$3.50 per ton, a few shipping firms in San Francisco was benefited to the amount of \$532,000. But to give them this benefit the United States Government remitted in duties on Hawaiian sugars during 1896, about \$6,000,000. This bounty is yearly increasing. In other words, that a few ship owners in Frisco may get a fancy freight rate, the government is asked to lose about \$100 for every dollar of their profit.

Hawaii produced only 237,000 tons of sugar last year, or but little more than one-tenth of the United States consumption—not enough to cut any figure. This is one of the arguments of those who favor annexation. But to produce even this quantity of sugar in the United States would require forty-five factories costing \$250,000 each, or nearly \$12,000,000 of capital. They would utilize the beets grown on 150,000 to 175,000 acres of land, to say nothing of the enormous sums that would be spent for labor, supplies, etc.—*Orange Judd Farmer*.

The English Sugar Bounties.

To give "such direct advantages to the cultivators and producers of sugar as will enable all well managed estates to hold their own." The precise meaning of this remarkable statement of Mr. Chamberlain's is unknown, but it has been supposed to point to a direct bounty to be given to the owner of vacuum-pan estates in the West Indies. It is to be hoped that the popular view has misinterpreted Mr. Chamberlain's meaning, for a bounty of the sort would be destructive. In the first place it would shut West Indian sugar out of its chief market—the United States—where there is a countervailing duty against all bounties. In the next place, it would at once stop the pending negotiations at Washington for more favored treatment of West Indian sugar under a reciprocity treaty. Thirdly, it is not the vacuum-pan estates, or the districts where they are chiefly used, that are most threatened with difficulties in the West Indies. The main sufferings are, and will be, on estates where obsolete appliances are used, and where the owners are too poor to improve. These people would indeed have reason to complain if their richer neighbors were relieved, while they were left in the cold. Fourthly, the demand for vacuum-pan sugar, such as that hitherto sent us from the West Indies, is comparatively limited at anything like its present relative values, because of the competition of white beet granulated.

Raw grocery crystals are only sold to any great extent in certain districts, and if their supply were greatly increased through the operation of bounties the price might fall far

below the present relative value. Fifthly, the British refiners also assert that they are materially injured by the beet bounties. On the whole, we do not believe they are so much injured as they think. but a bounty on grocery cane crystals would certainly injure them, and they would with justice complain of such a step. Sixthly, if a bounty is given on West Indian sugar, why should Mauritius and other British cane colonies be excluded from its benefits? They are suffering just as much from the fall in sugar as the West Indies, and assert just as loudly that it is due to the trivial bounties, while, as a fact, it is due to infinitely wider causes, as we have often explained. Mr. Chamberlain said that the proposed "very large" government grant-in-aid to the West Indies would be, of course, much less than our incidental gain from the sugar bounties, which he put at £2,000,000 a year. Although a 30s. grant on the 260,000 tons produced in the West Indies would be under £400,000, that alone, in addition to the alleviations proposed by the commissioners, would be a heavy draft on the British taxpayer. But the sugar exports of the British Empire have already, in some favorable years, exceeded 500,000 tons, or double the West Indian production, and India alone produces at least some 2,000,000 tons of sugar a year, which a bounty of 1s. 6d. per cwt. in gold, or 3s. 3d. in silver, might make to flow out in a resistless stream. Then the granting of any bounties whatever by a free trade country like England would open up quite a new vista, and would establish a precedent under which any industry which happened to be under a cloud would appeal to the British taxpayer.

Such a system would be certain to lead to a war of tariffs with other countries, as it did under our obsolete "mercantile system," which we abandoned generations ago as injurious. Finally, the recent royal commission unanimously decided against this remedy of granting West Indian bounties. Under these circumstances we can not but think that Mr. Chamberlain's meaning can not have been such as is popularly given to his intentions, although his speech caused some surprise, from the meagreness and inaccuracy of the information that he appeared to have been supplied with on the West Indian question. Nevertheless, we can not imagine that the government can contemplate the direct grant of bounties. Still, so serious a view is taken on the subject in West Indian circles that we understand that representations have been made in the proper quarters, as to the absolute impossibility of an acceptance of a bounty, which would close the American market to the West Indies, or, at any rate, deprive them of the benefit they now get there.—*P. M. Review*.

The Sugar Bounties Question in England.

As is shown below, the crisis may not be so pressing as it has been in the case of vacuum pan sugar, but a liberal grant-in-aid to the West Indies may be defended by strong arguments. There has been an enormous fall in the value of sugar through economic causes,

helped to a small degree by the objectionable and unfair system of bounties, which has added doubt and uncertainty to an already difficult position. Estates in the West Indies, and particularly in the islands, are too small to allow of the introduction of modern machinery, and the crisis at the last has been too sudden for planters to adapt themselves to it. In the meantime there is in some of the islands a large, poor and ignorant population dependent, or nearly so, on sugar, which, under existing circumstances, can not be grown at a profit under the old processes they employ. About one-half of the produce of the West Indies and Demerara together, and perhaps three-fourths of the produce of the islands taken by themselves, is still made on the open pan system. This is absolutely impossible as a paying process owing to the depreciation in sugar, and the planters are quite unable to at once bring about the changes in the land system, in cultivation and in manufacture, which will alone allow them to compete in the markets of the world. Under these circumstances the West Indies may fairly appeal to the generous feeling of the British taxpayer and ask for help, especially as the mother country has been a great gainer by the fall in sugar. It is true that since the beginning of the century we have rarely been free from alleged West Indian crises, and that the planters have cried "wolf" so often that people may now be incredulous, when something little short of a catastrophe threatens particular islands, as is pointed out by the West Indian Commission. It is the makers of old-fashioned and obsolete sugar and their laborers who will suffer, and their condition may be most serious. It is to be expected that Parliament will turn a sympathetic ear to arguments such as these, especially as there is universal agreement as to the desirability of the removal of the foreign bounties, by any means that will not inflict too heavy a loss upon the mother country. It is at least questionable whether these arguments apply to nearly the same degree with vacuum pan sugar.

Prices last year were probably lower on the average than they ever were, and the annual Agricultural Summary for 1897, published in the Demerara *Argosy* of the 8th of January, argues strongly in favor of imposing countervailing duties against the foreign bounties. The following statements in the article itself seem a conclusive reply to the argument, so far as the existence of any pressing crisis in vacuum-pan sugar is concerned, which could call for so drastic a remedy:

"The majority of estates throughout the colony will show a moderate profit on the result of the year's working, but a few (less than ten), including some that suffered, severely from unfavorable climatic conditions, considerable loss. * * * The cane juice during 1897 was the poorest of which there is any record. Cane juice previous to 1895 would show an average over a number of years of 1.65 pounds sucrose per gallon; the average during 1897 would not exceed 1.30 pounds sucrose per gallon. * * * The outlook as 1898 opens is encouraging, as far as the sugar market is concerned, and prices are at a remunerative level, thanks chiefly to the policy of the United States in levying, in addition to the ordinary duties, a countervailing duty on

bounty-assisted sugar. The growing crop, generally speaking, is in a promising condition."

Another indication that the crisis in the West Indies may not be so pressing as some have thought, at any rate so far as vacuum-pan estates are concerned, is given by the following memorandum from the British refiners, addressed to Mr. Chamberlain on the 8th December last, and published in the *Sugar Cane* for January:

"The quantity of sugar per acre produced in the beet-root countries of Europe during the last three years is as follows:

Germany.....	1.71 tons of sugar per acre
Austria.....	1.09 " " "
France.....	1.24 " " "
Russia.....	.80 " " "
Belgium.....	1.55 " " "
Holland.....	1.29 " " "

"The average production of sugar per acre for these six countries is 1.26 tons. On the other hand, the quantity of sugar per acre produced in British Guiana and Trinidad, averaged from the results of the last nine years on estates producing 13,000 tons of sugar per annum in British Guiana, and 9,000 tons of sugar in Trinidad, is for British Guiana 1.82 tons per acre, and for Trinidad 1.54 tons per acre. The estates of the central factories in St. Lucia produced 1.75 tons of sugar per acre. In Barbados the production, according to evidence given before the Royal Commission, is 1.89 tons of sugar per acre. This gives an average for the four colonies of 1.75 tons of sugar per acre, as compared with only 1.26 tons of sugar per acre produced in the six principal European countries. This shows a very marked advantage of cane over beet root. A comparison of total cost of production will be found to give a similar result. At page 205 of Appendix C, Vol. I, of the Report of the West India Royal Commission, a full account is given of the cost of production in one of the most important sugar factories in Germany, from which it appears that, with every advantage, it costs even in Germany over £10 a ton to produce sugar without a bounty. The average cost for the whole of Europe must be considerably higher, because, while Germany gets 1.71 tons of sugar per acre, the average yield of the other five countries is only 1.06 tons per acre, representing an inferiority of 38 per cent. This would bring up the cost of production for those five countries considerably above the cost in Germany. On the other hand, the figures given at pages 206, 207 of the same Blue Book, of the cost of production in British Guiana and Trinidad, are as follows:

	Per Ton.		
The Colonial Company's factories—	£	s.	d.
(1) In British Guiana.....	8	19	4
(2) In Trinidad.....	9	6	0
" Messrs. Sandbach, Tinne & Co.'s factories—			
(1) In British Guiana.....	8	6	10
(2) " ".....	8	0	6
(3) " ".....	9	12	6

"To these may be added the cost of production at the central factories in St. Lucia, £8 15s. per ton. The average of these figures is £8 16s. 8d. per ton, against £10 a ton in Germany, and considerably more in all the other beet-root countries. Such facts as these show that, with free competition on equal terms, the West Indies are not only able to hold their own against beet-root sugar, but possess most distinct advantages which would give them prosperity and successful progress if they were free from the blighting competition of European export bounties. It must not be forgotten that cane sugar is superior to beet-root sugar, and fetches a higher price."

Taking the German bounty at 25s. per ton, the cost of production of £10 as given above is reduced to £8 15s., against £8 16s. 8d. in the colonies named. This, so far, is a net advantage of 1d. per cwt., or 1s. 8d. per ton—but against this, as the refiners truly say, cane sugar fetches a higher price. The value of grocery vacuum-pan crystals (such as are mainly made on the estates named above) in the London market just now is from 12s. to 13s. 6d. per cwt., and (taking expenses for freight and other charges at the rate of 2s. per cwt.) from £10 to £11 10s. per ton net, there is left a manufacturing profit of from £1 3s. 4d. to £2 3s. 4d. per ton. Taking an average profit on manufacturing cost of £1 10s. on the above basis, it would amount to over 17½ per cent.; this, too, in colonies where labor has to be imported—in Demerara at a cost of £1 per ton of sugar made. This favorable position would in any case only apply to vacuum-pan sugar, and is possibly only temporary, for undoubtedly the producers have done very badly of late years. These favorable figures also do not all apply to open-pan sugar, of which, perhaps, three-fourths of the produce of the island still consists. In the comparison with vacuum-pan sugar we are inclined to think that the refiners' committee put the first cost of German beet too high for any average, and that it is something like £9 10s. per ton, or less bounty £8 5s. This would materially alter the comparison, and would make the relative position of our planters worse.

There appears to have been some hitch in the meeting of the proposed international drawback convention owing to difficulty with France. The following apparently semi-official announcement appeared in the *Daily News* of the 10th February, whether due to this delay or not we do not know:

"The Exchange Telegraph Company states 'upon high authority' that, notwithstanding the important references which have been made in the speech from the throne to the sugar industries in the West India Islands, it has practically been decided by the government that no parliamentary action in regard thereto shall be taken for some time to come, the view held by those best qualified to form an opinion on the subject being that the movement would be injured rather than assisted were a debate to take place just at present on the subject in the House of Commons. It is understood that Mr. Chamberlain is entirely in accord with this view, which is also shared by the official opposition. It is probable, therefore, that in the course of a day or two the Colonial Secretary will be formally questioned in regard to the intentions of the government."

The following extract from the Queen's speech of the 8th is printed here simply for reference, but it will be noted that her Majesty has not been advised to name countervailing duties, which is the only point on which there is any serious controversy on the sugar trade, in connection with bounties:

"The report of the commission which I appointed in December, 1896, to inquire into the condition of certain of my West Indian colonies has conclusively established the existence of severe depression in those colonies caused by a heavy fall in the price of sugar, which is mainly attributable to the reduction in the cost of production and the great increase in its extent during recent years.

"But this fall has been artificially stimulated by the system of bounties to the producers and manufacturers of beet-root sugar maintained in many European States. There are signs of a growing opinion in those States that this system is injurious to the general interests of their population; and communications are now in progress between my government and the governments principally concerned, with a view to a conference on the subject, which, I trust, may result in the abolition of the bounties.

"In the meantime, measures will be proposed to you for the relief of the immediate necessities of the West Indian colonies, for encouraging other industries, and for assisting those engaged in sugar cultivation to tide over the present crisis."

Replying to an inquiry from Sir H. Vincent as to bounties in the House of Commons on the 10th inst., the president of the Board of Trade, Mr. Ritchie (Croydon) said:

His honorable friend, the member for Sheffield, had raised the question of bounties. On that point he was entirely in accord with him. As his honorable friend knew, the government were engaged upon negotiations to bring together a conference of the powers with a view to the abolition of the sugar bounties, which had done so much harm to our trade and commerce. He believed the House would welcome the abolition of these bounties if it could be done by friendly negotiations. The bounties given to the shipping of foreign countries were of a different order from the sugar bounties. They were really given in the form of subsidies to establish quick communication by sea, and services were performed in return for them. Whether the subsidies exceeded the value of the services rendered or not was a question it was impossible for them to discuss with the hope of arriving at a satisfactory result. But if they were in excess of the services rendered how could we stop them being given? His honorable friend referred to inland railway charges in Germany and other countries which gave to the lines of steamers belonging to those countries advantages over English shippers. Having regard to the fact that in this country they endeavored to secure that there should be no preference to any persons or body of persons in the matter of railway rates, he thought they were entitled to make some representation upon that score to foreign governments when opportunities arose. The Secretary of State for Foreign Affairs, on the suggestion of the Board of Trade, was now endeavoring to see whether, in connection with the new German tariff, that country would follow our example and remove the disadvantage under which our traders labored. He hoped his honorable friend would be satisfied with his assurance that they were alive to this matter, and that they were endeavoring to secure the removal of these disadvantages.

One important point is suggested by the latter portion of Mr. Ritchie's remarks, as to the connection of railway rates with the sugar question. The refiners of this country have for years past had very grave reason to complain of the preferential rates given to foreign sugar by our railway companies. These indirect bounties granted to foreigners here are allowed to go on unchecked, although Mr. Ritchie's own department has full power to stop them by bringing the numerous cases before the Railway Commissioners in detail; and by further strengthening the law as to undue preference, if it prove not to be strong enough. It is too absurd, under such circumstances, for our government to make representations to Germany, when the department in charge

[CONTINUED ON PAGE 143.]

FEBRUARY 26.

WEEKLY MARKET REPORT.

1898.

SUGAR.	February 19.	February 21.	February 22.	February 23.	February 24.	February 25.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	— @ —			— @ —	— @ —	— @ —	— @ —	Quiet
Strict Prime	3 3/4 @ 3 1/4			3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	2 7/8 @ 2 1/2	
Prime	3 3/4 @ 3 1/4			3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	2 1/4 @ 2 1/4	
Fully Fair	3 3/4 @ 3 3/4			3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	2 3/4 @ 2 3/4	
Good Fair	3 3/4 @ 3 3/4			3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	2 3/4 @ 2 3/4	
Fair	3 3/4 @ 3 3/4			3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	2 3/4 @ 2 3/4	
Good Common	3 3/4 @ 3 3/4			3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	2 3/4 @ 2 3/4	
Common	3 3/4 @ 3 3/4			3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	3 3/4 @ 3 3/4	2 3/4 @ 2 3/4	Strong.
Inferior	2 1/2 @ 3			2 1/2 @ 3	2 1/2 @ 3	2 1/2 @ 3	2 @ 2 1/4	
Centrifugal.								
Plant'n Granulated	4 1/4 @ —			4 1/4 @ —	4 1/4 @ —	4 1/4 @ 14 1/2	8 1/4 @ 4	
Off Granulated	— @ 4 1/4			— @ 4 1/4	— @ 4 1/4	4 1/4 @ 4 1/4	8 3/4 @ —	
Choice White	— @ —			— @ —	— @ —	— @ 4 1/4	8 3/4 @ 3 1/4	
Off White	4 1/4 @ 4 1/4			4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	3 3/4 @ 3 1/4	
Gray White	4 1/4 @ 4 1/4			4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	— @ —	
Choice Yellow	— @ —			— @ —	— @ —	— @ 4 1/4	8 3/4 @ —	Strong.
Prime Yellow	4 1/4 @ 4 1/4			4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	8 3/4 @ —	
Good Yellow	4 @ 4 1/4			4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	8 3/4 @ 8 1/4	
Seconds	2 3/4 @ 3 1/4			2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	Holiday.	Holiday.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice								
Strict Prime								
Good Prime								
Prime								
Good Fair								
Fair								
Good Common								
Common								
Inferior								
Centrifugal.								
Fancy	— @ 14			— @ 14	— @ 14	— @ 14	— @ —	Strong.
Choice	— @ 13			— @ 13	— @ 13	— @ 13	— @ 9	
Strict Prime	— @ 12			— @ 12	— @ 12	— @ 12	— @ 9	
Good Prime	— @ 11			— @ 11	— @ 11	— @ 11	— @ 8	
Prime	— @ 10			— @ 10	— @ 10	— @ 10	— @ 7	
Good Fair	— @ 9			— @ 9	— @ 9	— @ 9	— @ 6	
Fair	— @ 8			— @ 8	— @ 8	— @ 8	— @ 6	
Good Common	— @ 7			— @ 7	— @ 7	— @ 7	— @ 5	
Common	— @ 6			— @ 6	— @ 6	— @ 6	— @ 5	
Inferior	— @ 5			— @ 5	— @ 5	— @ 5	— @ —	
SYRUP.	— @ —			— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 89	— @ —			— @ —	— @ —	— @ —	— @ —	Quiet.
Centrifugals, 96	— @ —			— @ —	— @ —	— @ —	— @ —	
Granulated	5.08 @ —			4.93 @ —	4.96 @ —	4.93 @ —	4.10 @ —	
Standard A	4.84 @ —			4.84 @ —	4.84 @ —	4.84 @ —	3.98 @ —	
Cuba, 96, Ctf.	— @ —			— @ —	— @ —	— @ —	— @ —	Steady.
MOLASSES.								
N. O. Choice	— @ —			— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —			— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —			— @ —	— @ —	— @ —	— @ —	Quiet.
LONDON:								
Java, No. 15 D. S.	11s. 0d.			11s. 0d.	11s. 0d.	11s. 0d.	11s. 0d.	Steady.
A. & G. Beet	9s. 5 1/2 d.			9s. 4 1/2 d.	9s. 4 1/2 d.	9s. 8 1/2 d.	8s. 11 1/2 d.	

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.53	Strong
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.53	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.16	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4.04	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Feb. 16	Tons	309,590
At four ports of Great Britain to	Feb. 13	"	95,500
At Havana and Matanzas to	Feb. 16	"	65,500

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING FEB. 25, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	293	36,076	1,006
Sold	293	33,918	1,006

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO FEB. 25, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	19,066	1,257,700	169,536
Sold	19,066	1,228,879	169,536
Received same time last year	31,273	1,129,458	196,921

FEBRUARY 26.

WEEKLY MARKET REPORT.

1898

RICE.	Feb. 19.	Feb. 21.	Feb. 22.	Feb. 23.	Feb. 24.	Feb. 25.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{3}{4}$ bbl.....	1 50@4 00	1 50@4 00	Holiday.	1 50@4 00	1 50@4 00	1 50@4 00	2 00@4 25	Steady.
CLEAN, Fancy.....	5 $\frac{1}{4}$ @5 $\frac{1}{4}$	5 $\frac{1}{4}$ @5 $\frac{1}{4}$		5 $\frac{1}{4}$ @5 $\frac{1}{4}$	5 $\frac{1}{4}$ @5 $\frac{1}{4}$	5 $\frac{1}{4}$ @5 $\frac{1}{4}$	5 $\frac{1}{4}$ @6	
Choice.....	5 $\frac{1}{4}$ @5 $\frac{1}{4}$	5 $\frac{1}{4}$ @5 $\frac{1}{4}$		5 $\frac{1}{4}$ @5 $\frac{1}{4}$	5 $\frac{1}{4}$ @5 $\frac{1}{4}$	5 $\frac{1}{4}$ @5 $\frac{1}{4}$	5 $\frac{1}{4}$ @5 $\frac{1}{4}$	Active.
Prime.....	4 $\frac{1}{4}$ @5	4 $\frac{1}{4}$ @5		4 $\frac{1}{4}$ @5	4 $\frac{1}{4}$ @5	4 $\frac{1}{4}$ @5	4 $\frac{1}{4}$ @5	
Good.....	4 $\frac{1}{4}$ @4 $\frac{1}{4}$	4 $\frac{1}{4}$ @4 $\frac{1}{4}$		4 $\frac{1}{4}$ @4 $\frac{1}{4}$	4 $\frac{1}{4}$ @4 $\frac{1}{4}$	4 $\frac{1}{4}$ @4 $\frac{1}{4}$	4 $\frac{1}{4}$ @4 $\frac{1}{4}$	
Fair.....	4 $\frac{1}{4}$ @4 $\frac{1}{4}$	4 $\frac{1}{4}$ @4 $\frac{1}{4}$		4 $\frac{1}{4}$ @4 $\frac{1}{4}$	4 $\frac{1}{4}$ @4 $\frac{1}{4}$	4 $\frac{1}{4}$ @4 $\frac{1}{4}$	4 $\frac{1}{4}$ @4 $\frac{1}{4}$	
Ordinary.....	3 $\frac{1}{4}$ @4	3 $\frac{1}{4}$ @4		3 $\frac{1}{4}$ @4	3 $\frac{1}{4}$ @4	3 $\frac{1}{4}$ @4	3 $\frac{1}{4}$ @4	
Common.....	3 $\frac{1}{4}$ @3 $\frac{1}{4}$	3 $\frac{1}{4}$ @3 $\frac{1}{4}$		3 $\frac{1}{4}$ @3 $\frac{1}{4}$	3 $\frac{1}{4}$ @3 $\frac{1}{4}$	3 $\frac{1}{4}$ @3 $\frac{1}{4}$	3 $\frac{1}{4}$ @3 $\frac{1}{4}$	
Inferior.....	Nominal.	Nominal.		Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....	2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$		2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$	
BRAN, $\frac{3}{4}$ ton.....	9 50@10 00	9 50@10 00		9 50@10 00	9 50@10 00	9 50@10 00	9 00@10 00	
POLISH, $\frac{3}{4}$ ton.....	14 00@15 00	14 00@15 00		14 00@15 00	14 00@15 00	14 00@15 00	16 00@17 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING FEB. 25, 1898.

	SACKS ROUGH.	BELS. CLEAN.
Received.....	2,655	—
Sold.....	3,110	3,915

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO FEB.
25, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BELS. CLEAN.
This year.....	424,017	3,088
Last year.....	378,683	6,480

Sugar.

The sugar market was strong at the end of the week and a good demand prevailed. Receipts, which were moderate, were promptly absorbed.

Molasses.

No open kettle goods in first hands. Centrifugals strong.

Rice.

The market for both rough and clean rice was active at the end of the week. The receipts of rough were small, and were promptly absorbed. Considerable movement was reported. Prices for clean were well maintained, and a good demand prevailed.

**The Sugar Bounties Question in
England.**

[CONTINUED FROM PAGE 141.]

of the subject here is too ill-informed, or too timid, to tackle our own railway companies as to their breaches of law as well as of fair play. It is notorious that, while the Germans have specially low rates for exports, our railways grant specially low rates for imports, which can only have the effect of giving a direct preference to foreigners. As to the subsidies to foreign ships, our own immense annual payments to the great steamship lines, nominally for carrying the mails, are of too similar a character to allow us to say much.

Profit in Sugar Cane in Florida.

Now that the cold wave has upset our calculations to a greater or less extent, it is a good time to again call attention to the sugar cane business and the money that can be made in it in this county.

An example just comes to hand which exactly illustrates the point. Mr. A. C. Potter has just finished superintending the making up of the cane grown by Mr. L. N. Pipkin at

his place a few miles west of this city and finds that there are 570 gallons of fine syrup and two barrels of crude sugar, made from the cane which grew on one and one-half acres of pine land. Now here is \$285 worth of syrup at 50 cents a gallon, and add the sugar and we have \$300 as the yield of this small piece of ground. Now if \$250 or even one-half that amount can be made per acre off of cane, why in the world is it that our farmers are so slow to take hold of it?

Here is a crop which can be grown by any farmer and there is always a demand for the product at fair prices. This crop can be made and harvested before the freezes comes on and all will admit that this is a point in its favor. Get down to a sugar basis as quickly as possible.—*Bartow Courier-Informant.*

Sorghum Sugar.

[Telegram to Ploayune.]

FORT SCOTT, KAN., February 1.—The death-knell of the once promising sorghum sugar industry in Kansas, upon which the government spent almost \$250,000 in experiments, was sounded here to-day when the last piece of sugar machinery in the State was sold to Nebraska men for shipment to that State. The machine was from the Parkinson factory here, and cost \$104,000. It sold for \$9000. This was the first station established by the government and was the survivor of all others. The industry in Kansas gradually collapsed after the government removed the bounty on sugar.

Sugar for Muscle.

The German sugar manufacturers at one of their recent meetings have gone very thoroughly into the important role played by sugar on our physical organisms. We have on several previous occasions called attention to the advantages of sugar for muscular development, and cited practical experiments relating to the same. Some professors now go further and declare that sugar is the only source of strength of man; other substances, such as fats, albumen, etc., are transformed into sugar before their assimilation is possible. Efforts are being made to have the war minister look into the subject and give special sugar allowances to the soldiers. That there shall be no expense

for the government in giving the subject a trial, it is proposed that the German sugar manufacturers furnish gratuitously sufficient sugar for the two thousand men who are to be kept under observation. Examples are given of Russian factories where men employed are more willing to work when a certain daily sugar allowance is granted. This is combined with a sort of fruit pulp, and may be kept for a period of years without undergoing the slightest change. It very considerably promotes digestion and muscular strength. One need only recall a book written in the early part of this century in which it was argued that life could be considerably prolonged by eating sugar in determined quantities; for those in excellent health it helped to digest those dishes in which the rich too frequently indulge; for those who suffer from stomach pains sugar when eaten after a meal will generally prove a valuable specific.—*Sugar Beet.*

Mammoth Beet Sugar Factory.

SANTA MARIA, Cal., February 9.—The Union Beet Sugar Company has just let a contract for a \$500,000 beet sugar factory, to be located near here. It will be connected by rail with the Southern Pacific near Guadalupe.—*Herald.*

Col. Lewis S. Clarke, of Lagonda plantation, and Gov. H. C. Warmoth, of Magnolia, were in the city during the Carnival festivities.

Mr. Wilkinson, the engineer at Gramercy, is reported to have won golden opinions for his splendid management of the immense mechanism of that splendid house during the recent campaign. Gramercy can not afford to have anything but good men in her employ and she generally gets them.

One of the finest engineers the sugar industry of Louisiana has had the pleasure of seeing in a long time is Mr. H. F. Rougen, who was the erecting engineer at the Catherine place last fall. Mr. Rougen has been filling the position of instructor of mechanical arts at the Tulane University. He was at one time connected with the establishment of Mr. John H. Murphy in this city and was previously one of the faculty of the Terre Haute, Indiana, Polytechnic Institute.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-31-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Plety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 38 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98.

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient; desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98.

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98.

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97.

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98.

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98.

WANTED—SUGAR HOUSE ENGINEERS, chemists and sugar boilers; none but first-class and experienced men need apply. Address E. H. DYER & CO., 310 Byrne Block, Los Angeles, Cal. 2-9-98.

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; the best of references. Address EXPERT, this office. 2-5-98.

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2432 Chartres street. 2-5-98.

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98.

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98.

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2630 Dauphine street. 2-3-98.

WANTED—A POSITION AS ASSISTANT EN-gineer; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louisiana street. 2-3-98.

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98.

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Giesmar, La. 1-28-98.

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERKANO, 919 Poland street. 1-24-98.

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98.

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La.

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address GOTTLIEB KOELLE, 1938 St. Louis street, city. 1-21-98.

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBRE, Central, La. 1-20-98.

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. MCCRACKEN BROS., Eola La. 1-20-98.

WANTED—POSITION AS STORE OR BOOK-keeper or other clerical position on sugar plantation; by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address MAX, P. O. Box 1066, New Orleans. 1-17-98.

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 2-15-98.

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98.

WANTED—A POSITION AS CHIEF OR AS-sistant engineer; has had fourteen years' experience and can furnish first-class references. Address F. O. W., Lareauville P. O., La. 1-18-98.

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-18-98.

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98.

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. GEO. H. DOUGLASS, Covington, La. 1-11-98.

WANTED—POSITION ON SUGAR PLANTA-tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98.

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98.

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98.

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address P. O. BOX 422, Logan, Utah. 1-11-98.

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. Franklin street, city. 1-13-98.

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98.

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98.

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address COMPETENT, Box 649, New Orleans. 12-21-97.

WANTED—POSITION AS ASSISTANT MAN-ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97.

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address E. O. W., Houma, La. 12-30-97.

WANTED—SITUATION BY A GERMAN-Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address A. B., 618 St. Louis street, city. 12-28-97.

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address C. LAURENT, Whitecastle, La. 12-28-97.

WANTED—ENERGETIC AND STRICTLY SO-ber young man wants position as manager of small store on plantation, on salary or commission; gilt-edge reference as to ability and character. Address B. B., 1028 Bayou Road street, New Orleans, La. 12-28-97.

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address W. T., care Daily Journal, Plaquemine, La. 12-23-97.

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt-edge references. Address B. B., 1028 Bayou Road, New Orleans. 12-17-97.

WANTED—A FIRST-CLASS PAINTER, AC-customed to country and plantation work, would like to obtain work either by the day or contract. Address BRUNO, 863 Baronne street, New Orleans, La. 12-15-97.

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address R. V. H., 129 Decatur street, New Orleans. 12-15-97.

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898 at living salary. Address BOB, Port Allen, La. 12-16-97.

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and L. apides parishes and some New Orleans merchants. Address SMITH, care this office. 12-16-97.

WANTED—POSITION AS CLERK IN A COUN-try or plantation store; not afraid of work. Address CLERK, Postoffice Box 69, New Orleans, La. 12-23-97.

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address E. C. MARSHALL, Cheneyville, La. 12-7-97.

WANTED—By a young lady of several years' ex-perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address XY Z, care PLANTER. 12-3-97.

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address B, care of The Chief, Donaldsonville, La. 12-3-97.

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address J. E. W. DAVIS, McCall, La. 12-4-97.

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address HUSTLER, 1100 Dante street, New Orleans, La. 12-8-97.

WANTED—A YOUNG FRENCHMAN, 24 years of age, desires a position in a sugar house or mechanical construction shops. Has had experience as mechanic in France and in the most important sugar houses in Cuba. Address M. N., this office. 10-22-97.

WANTED—A POSITION ON A PLANTATION as centrifugal man, by a first-class sugar drier. Address H. A. WHALEY, care of Wm. Johnson, 7000 Magazine street, New Orleans. 9-28-97.

WANTED—HOSTLER FOR MEDWAY PLAN-tation, Bayou Salé, St. Mary parish. Apply with reference to D. J. KER, North Bend Plantation, Foster P. O., La.

WANTED—A POSITION; A HANDY MAN ON a plantation; can furnish recommendation. Address WM. J. TONGLET, 413 Royal street, New Orleans, La. 11-8-97.

WANTED.

A Good Second-Hand Mill, 5 or 5½ feet, with Gearing 34 to 36 inches. State terms of sale. Address

R, Care LOUISIANA PLANTER, NEW ORLEANS.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

NEW ORLEANS, LA., MARCH 5, 1898.

No. 10.

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AND

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6 inch.....	28 00	70 00	105 00	140 00
7 inch.....	32 50	81 15	121 75	162 50
8 inch.....	36 00	90 00	135 00	180 00
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Half Page.....	60 00	150 00	225 00	300 00
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LOUISIANA PLANTER, 339 Carondelet Street, New
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W. P. Miles,
Lesin A. Becnel,
J. N. Pharr,
Jules J. Jacob.

EXECUTIVE COMMITTEE:

Henry McCall,
W. B. Schmidt,
Louis Bush,
John Dymond, President.

Sugar Beets in Ohio.

In our issue of January 15, we discussed a bulletin issued by the Ohio Agricultural Experiment Station at Wooster, under date of January 10, which gave data very favorable to the prospective sugar industry in Ohio. Under date of February 14, the Ohio Experiment Station has issued another bulletin again drawing attention to the advantages offered by that State for the development of the beet sugar industry therein. Ohio consumes annually more than 200,000,000 pounds of sugar, which, if produced within the limits of the State, would occupy 200,000 acres of land in growing the beets necessary for its production. It would give employment to thousands of people and keep within the State \$8,000,000 or \$10,000,000 now sent to buy foreign sugars. The Ohio State Experiment Station is doing good work in this direction and it seems intent upon continuing the same until the industry shall materialize in full force there.

Pumping Masse Cuite.

Our readers will recall the fact that in our issue of February 19 one of our Hawaiian correspondents discussed the injury to crystallization by pumping masse cuite, and considerable data was given in our article concerning the same. In this issue we are very glad indeed to publish an interesting letter from Mr. E. P. Eastwick, Jr., concerning the same subject matter, which he discusses with the advantage of many years of actual experience in the work under consideration. Mr. Eastwick's contribution will be valuable to our friends in Hawaii, and in fact to all sugar producers throughout the world. It has been for the purpose of overcoming some of these difficulties to crystallization that Mr. Eastwick has perfected his *crystallization in motion* apparatus, which he believes will develop all the advantages of crys-

tallization in motion without the development of false grain or smear. We commend Mr. Eastwick's letter to the attention of our readers.

The Crop Situation.

There has been too much rain all over the sugar district during the past week for planting operations to make much progress. The soil has been thoroughly soaked, and a dry spell of several days' duration will be necessary to fit it for the resumption of work. Planting is probably as far advanced, however, as it ordinarily is at this date, though a small part of it is now being seriously retarded.

Sugar in Ante-Bellum Days.

In an old book published in 1830, we find the subjoined memorandum concerning the duties on sugar and prices in New Orleans and the number and value of slaves in 1830. It is rather an interesting reminiscence of the ante-bellum days of sugar making, and it is more especially so now when so many people are anxious to annex Hawaii with its semi-slave population and immense capacity for producing sugar with indentured labor, and when we learn of the evident willingness of Congress to negotiate reciprocity treaties with the English West Indies, wherein the sugar industry is largely based upon indentured coolie labor. We don't hear any desire expressed in Louisiana to go back again to the conditions of 1830, but there is a general desire that the domestic sugar industry should, in the United States, have a fair protection as against the sugar produced with semi-slave labor in other countries. The quotations that we make are as follows:

THE DUTY ON BROWN SUGAR.

	Per pound—cents.
1789.....	1
1790.....	1½
1797.....	2
1802.....	2½
1812 (double, war duties).....	5
1816.....	8

Since writing this table, the sugar in New Orleans is quoted from 5 to 5½, as follows:

Sugar on Plantations—The greater part of the purchases now made are 5½ cents for that of good quality. Crops have been sold at 5 cents and some obtained as high as 5½ cents for small lots of superior quality. A lot of the best quality was sold this week, delivered on the levee in town, at 5½ cents cash. Cleared this week 2323 hogsheads and 23 barrels.—*New Orleans Paper*.

NUMBER AND VALUE OF SLAVES IN 1830.
Slaves in the United States in 1820 1,538,128
Allowing 4 per cent. increase per annum for ten years 615,251

In 1830 2,153,379
Value at \$200 \$430,675,800
Slaves in Virginia in 1820 425,153
Increase ten years 170,061
Slaves in Virginia in 1830 595,214

Value at \$200 \$119,042,800

The Louisiana Sugar Planters' Association.

The March meeting of this association will be held next Thursday evening at 8:00 o'clock, at its rooms, 339 Carondelet street, and the subject scheduled for discussion is "The Shaving of Stubble," a vital question, in which all our planters are deeply interested. There will also be several other industrial matters of great interest touched upon, and one or two highly ingenious working models of sugar house appliances will probably be on exhibition. As this is the annual meeting, the election of officers to serve during the ensuing year will be held, and an unusually large attendance is expected.

The Lillie Multiple Effect.

The satisfactory working of the Lillie multiple effect is certainly evidenced by the fact that Hon. A. H. Gay, manager of the St. Louis plantation, has just given orders to increase the capacity of the Lillie apparatus erected there last year sufficiently to evaporate 200,000 gallons of cane juice per day. Mr. S. Morris Lillie, the inventor of the apparatus, has telegraphed the above fact to Mr. E. W. Deming, his New Orleans agent, and we are thus furnished increased evidence of the enterprise of the sugar planters of Louisiana in ordering up-to-date machinery of every kind with the view of getting the best results with the least outlay in the way of expenses of operation.

While it is early in the season yet to determine what improvement will be made in the sugar houses of Louisiana, it is fair to say that a very considerable amount of work will be done and our machinery people are already beginning to feel the influx of orders.

The Rice Crop of Japan.

The French consul at Yokohama reports that the rice crop of Japan for the past year was far below the average, not exceeding 33,000,000 or 34,000,000 koku. The crop of the preced-

ing year was also very poor, and as a result the stock on hand in the interior has been exhausted. The foreign importation of this staple has greatly increased during the past few months, while the amount exported shows a corresponding decrease.

The following figures show the condition of affairs in a very striking manner:

	Imports. *Piculs.	Exports. *Piculs.
1895	1,685,352	1,798,983
1896	1,862,002	1,893,613
1897 (to October)	4,512,983	1,169,665

*One picul equals 133.3 pounds.

The consul expresses the opinion that the foreign importations will increase during the coming season, and that the greater part of this traffic will be absorbed by Cochinchina.

Does Pumping Masse Cuite Interfere with Crystallization?

NEW ORLEANS, February 23, 1898.

Editor Louisiana Planter: I have read with much interest the communication from "Occidental," in reference to the pumping of masse cuite from pans, and the result of his experience, and conclusions, as regards its effect on the crystallization of sugar, also your remarks in regard to this.

During a number of years past I have had considerable experience in the graining of low test sugar solutions and have made a number of experiments with cane sugars from Louisiana, Cuba and other countries, and also with beet sugars, and the results I have obtained differ somewhat from those mentioned in the communication referred to.

Briefly stated, the results I have obtained, irrespective of whether cane or beet sugar was used, are as follows: When the low stuff was boiled to *blank proof* in the pan, and discharged into wagons or tanks in hot rooms, no difference was noted in the grain of sugar produced, whether the contents had been pumped out of the pan or allowed to run out of gravity. This refers, of course, to cases where the concentrated solutions were *not chilled* by the pumping.

When the grain was started in the pan, before being discharged into the wagons or tanks in the hot room, the sugar produced was generally the same, though in some cases, when pumping had been resorted to in discharging the pan, the sugar had not as large and even a grain.

It was suggested some years ago that crystallization would be promoted, and a much better grain obtained, if after grain had started in a tank (blank proof boiled) the contents of the tank was transferred into another tank, where it would remain until ready to be worked off in the centrifugals. My experience in this was that in every case where this system was carried out by pumping a "smear" was produced in the magma, and it worked off very slowly in the centrifugals.

I also determined that in nearly every instance where the contents of a wagon or tank was pumped, either for the purpose of transporting from one wagon or tank to another, or from a wagon or tank to a mixer, the sugar produced was always of inferior quality and

dried very slowly in the centrifugals. This I attribute to two causes, first, that the solution became chilled with the results of bringing in fine grain, and second, that a certain amount of grain already formed was mashed up in the cylinder of the pump.

I note that in your remarks on Occidental's communication you refer to the present tendency among sugar manufacturers toward "Crystallization in Motion," both for high and low grade sugars, and that you mention the advantage that this system of crystallization has shown, and that, therefore, it would naturally seem to follow that a good slow-moving magma pump would not injure the crystallizing capacity of low-grade sugar. In regard to this I would say that were it not for the chilling and breaking up of the grain, which takes place in the pump, the effect of pumping would be beneficial.

The explanation why the results obtained by crystallization of sugar in motion are so good is because the movement of the crystals in the solution is effected without injury to the crystals, and at the same time the temperature of the mass is being rapidly decreased. In order to facilitate crystallization this cooling is done gradually and means are provided for preventing chilling.

EDW. P. EASTWICK, JR.

Personal.

Col. Thos. D. Boyd, president of the Louisiana State University and A. and M. College, at Baton Rouge, was in the city during the past week, stopping at the Denechaud. The Sugar School adjunct to the university is a valuable acquisition to that establishment.

Mr. J. F. Kilby, of Cleveland, Ohio, was registered at the St. Charles Hotel on Monday. The Kilby Manufacturing Company, of which he is president, turns out immense quantities of machinery for both beet and cane sugar factories.

Mr. J. F. Webb, of the Baton Rouge Sugar Company, was in town during the past week and registered at the St. Charles.

Mr. R. H. Sprague, one of the proprietors of the Adeline central factory, was a guest of the St. Charles a few days ago.

Mr. R. G. Comeaux, of Plaquemine, was in the city on a visit a few days ago, and registered at the Commercial Hotel.

Mr. C. S. McFarland was the hustling manager of the Houmas central during the past campaign, and is reported to have scored one of his usual successes in the management of the multifarious affairs of the great factory. J. J. Leahy, chief engineer, rendered valuable assistance in keeping the machinery in the best of trim, while Mr. Irving H. Rothrock, head chemist, did faithful and exceedingly meritorious work in the laboratory.

Capt. John N. Pharr, of Berwick, was in the city on a visit a few days ago, and put up at the St. Charles Hotel.

Col. Lewis S. Clark, of Lagonda, was at the St. Charles on Thursday.

Mr. Thomas J. Shaffer, one of our most prominent and progressive sugar planters, was a guest of the St. Charles Hotel during the past week.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: The weather conditions continue to exhibit the degree of variability upon which I commented last week, and planters who had confidently expected to have their cane planting finished ere this are becoming restive at the delay in the work caused by the frequent spells of wet weather; but it is still early in the season, comparatively speaking, and even the most backward of our planters in the matter of the putting of their seed into the ground are considerably ahead of the stage reached at this time last year.

On the Miles Company's places at Burnside, for instance, there is still a deal of planting to be done, but as Manager Alfred Becker remarked in my hearing to-day, the work is much more advanced than in 1897, as planting was only begun then on the 2d of March, whereas it is much more than half done now. Notwithstanding this reassuring fact, however, it would be a great relief to all interested to have a term of dry weather long enough to permit the wind-up of the planting season.

Mr. Carroll Barton, owner of the desirable Magnolia plantation, in Assumption, has about three-quarters of a day's planting yet to do, and wonders when he will get a chance to do it. Mr. Barton has purchased some of the equipment of the well-known Shadyside factory in St. Mary, and will make use of it in improving the facilities and capacity of Magnolia for turning out sugar. He will grind a largely increased quantity of cane this year if all goes well, and must augment his means of handling it.

The second sale of sugar property in Ascension this season was consummated this week, Mr. Edward Godchaux having disposed of his Gem plantation to Mr. Joseph Haydel, of St. Charles parish, who is assistant manager of Mr. Jos. R. Hymel's Hymella plantation. The purchase price was \$20,250, and includes the Gem store building and the lease of that establishment held by Messrs. Keller & Glenn, together, of course, with all the other buildings and improvements on the place. Mr. Haydel is said to be an excellent planter, and is, therefore, more than likely to make his new venture profitable.

Mr. G. B. Reuss, president of the Belle Helene Planting and Manufacturing Company, has contracted with the Fulton Iron Works for a new six-roller mill, and with Messrs. Payne & Joubert for large double effects to be erected in the Belle Helene factory this year, and these contracts are indicative of the enlarged scope of operations in contemplation at Belle Helene for the coming crop. The vacuum pan is to be improved and other changes effected in the equipment that will enable the establishment to manipulate a much larger quantity of cane than heretofore.

There was no meeting of the Ascension branch of the Sugar Planters' Association on Tuesday, owing to the common complaint of lack of a quorum.

For the same reason the police jury of the

parish failed to meet on Wednesday to promulgate the returns of the special elections held in the Seventh and Eighth Wards last Saturday to decide whether five-barb-wire fences should be legalized and hogs and other stock be prohibited from running at large in those wards. The proposition was lost in the Eighth Ward, from whence it emanated, and carried in the Seventh, where there was supposed to be much opposition to its adoption. There are, therefore, other things quite as uncertain as petit jury verdicts in

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has not been so favorable since last report. It is true we had several beautiful days, but just when the work of planting was again under way rain set in and it continues, making everything wet and nasty. Our planters are getting anxious about the seed remaining in windrow awaiting planting. It is sprouting badly, owing to the warm weather we have had. Very little work was done this week except in new ground. Some corn has been planted. If we have no more cold some are figuring on laying by cane in May.

The Messrs. Berthelot Bros., of St. Gabriel, on the east bank, have begun to plant rice on their Ophelia plantation and the Bank Place adjoining, which they have leased from Mr. Anatole Joly. The Messrs. Berthelot are practical and thorough rice planters and never fail to make and save a good crop.

Messrs. J. B. Humphreys & Co. is a new planting firm engaged in the cultivation of rice. Mr. Humphreys is an energetic planter, who sees more in rice than he has found in cotton, and with Mr. John M. Carville, of Dreyfous, La., under the above style, will plant 250 acres or more in rice at the lower end of the parish.

On the Dunboyne and Palo Alto Mr. Alonzo Landry will get in 600 acres of rice.

At the Reliance plantation of Mr. Louis Lozano several days' planting yet remain to be done and Manager E. H. Comeaux reports the seed in fine condition and not sprouted. This cane was put down in December, which fact may account for its good condition. Seventy-five acres of new ground are being cleared up at Reliance.

Messrs. V. & J. A. Berthelot, of the lower end of the parish, report that a half day's work on one place and two days on another will wind up their planting. They will get in 850 acres on their three places.

Mr. J. F. O'Neil, of St. Louis, representing those splendid sugar mill builders of that city, the Fulton Iron Works, is in the parish this week, where we understand he has closed a contract for one large mill with prospects of securing one or two more. Mr. O'Neil replaces Mr. Geo. W. Fisher, who we learn is at present sojourning in the Sandwich Islands. The good qualities of the mills of the Fulton Iron Works are epitomized in the words "We don't want any better," spoken by Mr. J. A. Berthelot, one of the owners of the Old Hickory plantation, where one of these mills was in-

stalled three seasons ago, and which has given no trouble whatever since.

Mr. Walter V. Bainbridge, a practical farmer, whose home is at Newcastle-on-Tyne, England, was at Plaquemine this week with strong letters of recommendation. Mr. Bainbridge is on a visit to America for the purpose of investigating American agricultural methods, and we hope he will be the means of bringing English capital into the sugar district. Two or three large central factories could be erected with immense benefit to the capitalists and advantage to the locations in which they are erected.

The heirs of the late Paulin Gaudin have sold their little farm five miles below Plaquemine to Francisco Canella and Guiseppe Schiro, two sons of Sunny Italy, for \$1000 cash. All the earnings of the Italians are apparently not sent across the ocean.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: Field work has been more or less interrupted during the past two weeks by unwelcome and untimely rains. Indeed it seems impossible to get more than two days of good weather at a time. Despite all unfavorable conditions, however, considerable progress has been made in planting cane. A few planters have finished this branch of field work, but the great majority are still "pegging away," endeavoring to plant in good weather, and, under the best circumstances possible.

Seed cane is in good condition, generally speaking. Here and there in black, buckshot land, defective seed is found, but, taken as a whole, seed cane and stubble have emerged from the winter in excellent shape. This is probably attributable to the fact that the winter has been remarkably mild and open, little or no severe cold weather having been experienced. Of course, we are not yet "out of the woods," and felicitations upon the good condition of the cane are somewhat premature; but there is a great deal of satisfaction in reporting that so far all is well.

Sugar circles are considerably interested in a report to the effect that Mrs. R. Milliken intends tearing down Smithfield sugar house and erecting on the site thereof a large factory—a duplicate of Leon Godchaux' Reserve refinery in St. John. The machinery in Smithfield, or at least a portion of it, is old and unsatisfactory, and the proprietor, so it is reported, is desirous of erecting a modern up-to-date factory. It is understood, however, that a certain supply of cane is the necessary condition precedent upon which the factory will be constructed. Several planters in the upper portion of the parish who have no mills and who have their cane ground at Mr. David Devall's Orange Grove factory, are very much interested in the proposed new mill, and the outcome will be watched with interest.

In addition to the crop grown on the plantation proper, Cinclare now has under contract 35,000 tons of cane, with every assurance of being able to obtain all the cane wanted. In this connection, it is understood that there are

now under contract in the parish of Rapides 60,000 tons of cane to be delivered at points along the Texas & Pacific Railroad.

As foreshadowed in this correspondence last year, there has been an increase in the cane acreage of this parish. True, the increase is not great, but it is of some significance as showing the confidence the planters have in the future of their great industry.

The Burns Brothers, on Silvery, are putting in a large cane crop—the largest, in fact, ever planted on that fertile plantation.

Poplar Grove finished drying out seconds last Friday, the entire sugar crew, from Sugar-boiler Hill down, leaving Saturday for their respective homes.

An abundance of labor is reported at all plantations. Many negroes who went cotton crazy last year are back on the sugar plantations.

Heavy black clouds at this writing (Wednesday morning) give promise of more rain at an early date for
WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: Just now there is but little of interest to mention. It is between seasons, so to speak, and excepting to record the weather, there is but little to say. Anent this trite subject, we have on the whole ground of complaint on account of the excess of rain that has deterred planters from pursuing their wonted out-of-doors occupation. The planting of the cane is well advanced, but it has been done slowly and has been long drawn-out on account of the frequent rains. The rain of Sunday means the loss of a few more days before active operations can be resumed. But little or no corn has been thus far planted, and as a rule people are not sorry. Much of the corn land is ready to plant, and a few days of suitable weather will witness the prompt commencement of this phase of agricultural labor. The heavy rains have given all an opportunity of noting the weak spots from a standpoint of drainage, as the capacity of the ditches has been severely tested. It is to be hoped that when we get clear weather that it will not be as constant as the rains have been.

The burden of the planter's song about grinding is, "What will the harvest be?" and at this season of the year it is, "What will the improvements be?" for this is the season when numerous improvements are erected—on paper, that fail to materialize later.

Magnolia will put in larger mills, Mr. Barton having refused to continue another year without adding to his milling facilities. The mills to be put in have been doing yeoman service on Shadyside, so we may next year expect to see the Magnolia sugar classed as "fancy yellows," just as the product of the famed Teche plantation was this year.

The falling rivers have somewhat relieved the rising fears of high water.

The condition of the roads show the presence of much rain and water, and it is to be hoped that under the new system much and thorough work will be accomplished.

We have heard of a fancy price having been offered and refused for an Assumption sugar

place. As a rule, the land in Assumption commands a higher price than in any other sugar parish. When we get a railroad the prices will go even higher and the crop of sugar be greatly increased. The present price of sugar has proven a wonderful stimulus, and lack of seed cane alone has prevented many small farmers from putting in a few acres. Gradually the system of centrals is coming to the front and the presence of a large factory has had the effect of increasing the value of the lands in that vicinity. Competition among the factories will necessarily enhance the price of the cane and with it the price of the lands. The tendency to gouge the tenant and small farmer will by that fact be ended, and the owner of the factory will be content with a certain profit, smaller perhaps than at present, but one that will allow both a chance to make a fair income. A railroad will bring competition, and particularly if the efforts of the members of the Constitutional Convention are attended with success in the matter of getting a railroad commission that will see that no cut rates are given and no favoritism shown. If defeated, the fight for a commission will be transferred to the Legislature, and members will be elected that are pledged to a railroad commission.

We are to have steamboat competition in a few weeks, and things in the steamboat line on the Lafourche will doubtless soon be in a lively state.

We have recently been shown two inventions that will probably be very useful to the cane raiser. As in both cases patents are to be applied for, I am not at liberty to describe them.

MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: From present indications the chances are no injurious cold will visit this section of the State, as was the case in 1890, on the 1st of March.

Vegetation is not as far advanced as was the case that spring, yet the willow trees are out in leaf and peach and plum blossoms are to be seen.

The past month has been one of anxiety to the planters, as field work was so retarded by the heavy rains at intervals, yet some may end cane planting during the week should the weather continue favorable. The land was beginning to work moderately well, but the rain of Sunday, in the vicinity of town, so saturated the soil that planting could not be renewed before Tuesday afternoon, and even then the fields were really too wet to plant well. It is high time the canes were planted or sown, as the seed begins to show some signs of deterioration in places, having, during February, been saturated by the too heavy rains.

As soon as the cane planting is brought to a close the stubble shaver will be brought into requisition by some, and others again will resort to the hoe and digger, being reluctant to destroy the canes already above ground.

Good canes are made with and without the shaver, and of the two the stubble digger is the most valuable implement of the two under average conditions.

Thus far but a very limited area has been planted in corn, which is probably fortunate, as the packing rains would have put the fields in such plight as to cause the after working to be expensive.

From the present outlook no very extensive changes will be made in the factories throughout the parish, although one or two houses may receive new crushing plants to replace those somewhat antiquated or deficient in power and capacity.

The official record of the weather at Schriever for February, kindly furnished by Mr. J. T. Moore, Jr., shows a maximum temperature of 81.6 deg. on the 11th, and the minimum 28 deg. on the 4th, and rainfall 6.82 inches, and for the last week, as follows:

	Temperature.	Rainfall.	Sunshine
February	21.63.5	36.0	.....
"	22.65.0	30.5	.....
"	23.65.0	31.0	.....
"	24.73.4	38.8	.....
"	25.73.6	48.8	.....
"	26.77.2	49.2	.....
"	27.77.0	50.5	.....
	73.5	49.7	.57 3.56.

The weather conditions at the present writing (Wednesday) are not favorable, light showers fell before sunrise, and there are indications of more rain. Even the best drained, sandy fields are too wet to plough to any advantage. The weather is warm for the season, and will hasten the germination of the eyes of the stubble canes, and the rooting of the mother canes planted.

The parish has sustained a loss which will be long felt in the death of Mr. Arbin Bourg, the clerk of the court, who died about 11 o'clock at night, the 28th of February. He was highly esteemed by his fellow-citizens, to whom he was ever courteous and obliging. His family and relatives have the deep sympathy of the community at large.

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The weather still continues unfavorable for all kinds of work. We have an occasional clear day, but the bad days overbalance the good by such odds that they are all classed bad. Between bad weather, the giving of opinions of the blowing up of the Maine and discussing the war (that will never be) with Spain, our farmers are kept at a dead standstill, and farm work is very much behind for the season. Some cane is still being planted, but the bulk of the crop is already in. The exceeding spring-like weather that we have been having has caused stubble cane to come up, and on many plantations the rows can already be marked by the ratoons, some of which are at least a foot high. From present prospects the stubble stand will be excellent this year. Some corn is being planted, though the bulk of the crop will not be put in before the last of this month. The acreage this year will be larger than usual, on account of the extreme scarcity this year and the fancy price that it is commanding in the local market. But very little preparations are being made for a cotton crop. The prices realized

for the last crop were so unfavorable that our cotton planters are disgusted. There were agents through the parish several days ago, trying to interest our people in Egyptian cotton, but they met with but little success for the reason that it takes a gin made specially for the purpose to gin it. The cotton acreage will be diminished this year, but just what per cent. can not be ascertained at this time. The rice industry is still booming. The acreage will be enormously increased.

There is some talk here of the "Pee Gee" Railroad extending its line from Lake Charles by way of Lake Arthur, Gueydan and Abbeville to New Orleans. Our people are very anxious for this to be done and would render all the assistance possible to have the road come through. It would pass through the finest section of country in America, would give to the Western man an opportunity to come South and help develop the many thousands of acres of fine virgin lands that we have, and lastly, would afford a direct outlet to Northern markets for the produce raised in the country. We have a fine country for fruits and vegetables, but we can not raise them simply for the lack of a market. The advantages will come some day in the near future and if the "Pee Gee" don't offer them some other road will. The undeveloped resources of the country are too great to escape notice much longer.

The death of Dr. W. D. White, which occurred at his home, in this town, on last Thursday, the 24th ult., was deeply deplored by the entire town and parish. We say parish for he was known throughout the parish and loved by every one who knew him. Dr. White was a resident of Vermillion for thirty-eight years, having come here from Nashville, Tenn., in 1860. His history of the general progress of things as the years rolled by was very interesting to listen to. He started out in Vermillion in the palmy days, when the cowboys and the navy six were law and order, but lived to see her transformed into a prosperous, law-abiding agricultural parish. Dr. White was a man who did a great deal for the promotion and progress of the country, and in his death Vermillion loses one of her very best citizens.

Mr. W. M. Ratcliffe, of Crowley, a gentleman who is largely interested in rice culture, was in Abbeville last Saturday and Sunday.

Mr. E. P. Putnam, the cotton king of Vermillion, was away several days last week attending to business. P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: While the farmers and planters have succeeded very well in the performance of much needed work, it can not be said that they have progressed to their entire satisfaction.

Cane planting, which it was thought at the beginning of February would have been finished by the first of March, has not, owing to the nature of the weather, been terminated.

A heavy rain fell over this part of the country on the morning of the 27th ult., clearing up on the morning of the 28th; cool, with frost

barely perceptible. But the ground seems to be so completely charged with water that it will be almost out of the question to attempt ploughing and planting before the middle of the week.

THE PLANTER'S scribe has been informed that Mr. C. G. Fuseller, the progressive manager of the Powhontas plantation, expected to have finished cane planting this week, and then give his attention to the preparation of the soil and the planting of corn, but since there has been so much unlooked-for wet weather, delays in planting have inevitably followed, not only on the Powhontas plantation, but on all fields and farms possessed of alluvial soils in this and the adjoining parishes.

Late advices from Rapides parish inform THE PLANTER'S correspondent that those who have engaged in cane growing and planting have, wherever it has been possible for them to do so, planted an increased acreage to cane. Mr. Druett, the energetic proprietor of the Home Place sugar factory, has to date, I have been informed, been out and on the alert looking over the field, prospecting to the end for obtaining in due season an adequate supply of cane for working into sugars when the day rolls around for starting the Home Place big nine-roller mill to crushing the juicy canes, which, with Master Mechanic Mr. Robert Storm at the helm, has never known such word as fail from start to finish.

Among the many notable and progressive cane growers of Rapides, of which there are many, I take pleasure in noting to-day the progress made thus far this year by Mr. Wm. Lyle, of Loyd Postoffice, Rapides parish. Mr. Lyle has a beautiful home and rich, attractive soils, which he cultivates to cane and corn. Outside of his home and farm, Mr. Lyle has leased the Compromise plantation, which he is now ditching and putting into a high state of cultivation for the purpose of cane growing. Having the advantage of tramway lines through the centre of both Compromise and his home fields facilitates the shipment of cane to the Home Place sugar factory. To date Mr. Lyle has planted some 125 acres to cane, and is preparing to plant a heavy acreage to corn and pease.

It may be stated that there are others in the vicinity of Loyd and Home Place following along the same lines of progress mentioned above and making money at farming by growing cane, corn and pea crops.

Coming nearer home to Avoyelles, I find that Mr. C. F. Knoll will, the weather permitting, fill out to the end of the last row at cane planting by the end of this week, and follow up with corn planting by putting in a large acreage. Mr. M. Bubenzer is, so I have been informed, about through with his cane planting. Mr. A. D. Havard, Bunkie postoffice, has planted quite a nice acreage to cane, and will proceed, as the season permits, to planting for a heavy corn crop.

The planters in the vicinity of Bunkie, Evergreen and Cotton Port are leaving no "stone unturned" to forward planting as expeditiously as the time and season is found fit for doing so.

Bunkie, the metropolis of Avoyelles, is growing steadily and firmly into a city of no mean dimensions, and offers facilities of marked superiority for building factories for the more profitable manufacture of cane into sugar, as well as for cotton mills, stave and wood-working plants.

ERIN.

St. James—Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: Any attempt to describe the weather otherwise than to speak of its very rainy and windy condition would be useless. Since a long time we do not remember having seen such continued rainfall. This week Monday was a somewhat fine day; Tuesday was of a very windy and cloudy nature, but Wednesday brought us a cold drizzle, accompanied by an east wind. All work has been suspended. Now that the time has come to plant oorn and finish planting of cane, the planters have been greatly dissatisfied, some having but five acres of cane to terminate their crop, and are there indefinitely suspended, merely capable of accomplishing a few odds and ends.

The condition our roads are now in is almost indescribable. The increasing rainfalls have compelled our road contractor to abandon the idea of trying to ameliorate their deteriorated condition.

The rapid fall of the river has been most visible. All levee work that had been hitherto suspended has been resumed, and according to all expectations the necessary repairs will most probably be finished for the actual high water.

We understand that a good many factories will undergo repairs of some kind; although the Helvetia sugar house has been as extensively repaired as could be during the last year, still some ameliorations will again take place this year.

A Birmingham mill and Corliss engine will be the leading feature of the very interesting and important repairs to take place at the well-known Uncle Sam factory. Messrs. Gibbens and Stream, of New Orleans, who enjoy the reputation of being the very best of mechanics, with the assistance of Mr. Pierre Chauvin, who is none the less popular, have the work in hand and one can well imagine how artistically the work will be accomplished under their care. Thus Uncle Sam with its new factory will rank among the finest and best fitted out plants of its kind.

With the good prices recently obtained on sugar, all the planters have sold out their crops, taking advantage of this rise in the market.

After long deliberation and ardent discussion the Supreme Court has at last rendered its decision in the case of Pertuit vs. Damaré, by reversing the judgment of the lower court.

This week one of St. James' well-known citizens, Mr. Deauzin Gaudet, died after a prolonged and painful illness, at the age of 62 years. He was married to Miss Velede Lalche, of one of the most estimable families of St. James. His untimely death will be greatly felt by a host of friends.

CONVENT.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, February 13, 1898.

Editor Louisiana Planter: The weather of the week just ended has been rather variable, but the meteorological phenomena have been of a more winter-like character than for a long time since, the moist precipitations consisting in a large part of snowfalls and the temperature fluctuating below freezing point and rising above the latter only at short intervals. There were, however, some days when snow changed into rain, but at the end of the week the weather became moderately cold and dry, which, as snow is now covering the fields, is considered as fairly favorable, at least as more favorable than the eternal wetness hitherto prevailing. In consequence of this latest change the winter cereals have for the time being escaped the danger of rotting, which was imminent, and the apprehensions of an unintentional addition to the beet sowings of this year are thus subdued. Of the probable extension of the area to be sown for the campaign 1898-99 no reliable advices are and can be at hand, the less so as the markets are quite variable, and as the discussion of the bounty question is an element of considerable uncertainty. However, in order to record faithfully everything pertaining to this subject it may be mentioned that the Belgian manufacturers have declared that they will grow 15 to 20 per cent. less beets than last year, and that a part of the Swedish sugar growers are also inclined to restrict their production, which, however, in a meeting lately held was gainsaid by another part of them. As to the weather in the other beet growing countries of Europe it can be on the whole said only, that it has not differed very much from that prevailing in this country; it has been perhaps, as far as reports are at hand, a little less winter-like and a shade more changeable.

Long speeches are delivered and long articles are written in all sugar producing countries of the continent on the subject of the bounties, but there are for the present no indications of a palpable result of the whole movement. It is, at the time being, not certain whether or when the conference will meet. The manufacturers in Germany and Austria, especially in the latter country, are not very sanguine as to the consequences of a total abolition of the bounties. In the first place, they expect that they are to be done away with in all countries and not exist further on in any form of disguise. Besides, they demand in Austria, in the case of abolition, certain compensations, such as reducing the sugar taxes for home consumption, and some facilities with regard to sugar exported in sweetmeats, chocolate, etc., the latter being legally granted already in Germany. But the principal stumbling block is and remains France, of whom nobody knows whether she will or will not take part in the conference proposed by the other powers. Meantime, Great Britain will, as announced in the speech of the throne, do something for her West Indian colonies, who,

it is believed, can not afford to carry on the sugar industry without fiscal aid. These colonies, however, see in the introduction of countervailing duties the only effective remedy, but to which the English government, so far, strongly objects.

As in former years I beg to extract from the official papers some figures with regard to the German starch sugar industry. There have been in 1896-97 twenty-seven starch sugar factories in operation, two less than last year. These establishments have worked 30,535 tons of wet and 1357 tons of dry starch of their own manufacture, whilst they have bought and worked additional 38,842 tons and 2600 tons respectively. In the succeeding campaign the quantities, both manufactured and bought, amounted to 66,252 tons wet and to 4208 tons dry starch. Of this raw material have been produced 6313 tons (in 1895-96, 9541 tons) starch sugar in solid form, 275 (530) tons in loaves and 34,825 tons (31,667) in liquid form. Besides 4183 (3716) tons of sugar color for coloring liquors have been made. The exportation of starch sugar products from Germany amounted to 1213 (1941) tons in solid form and to 1621 tons in the form of syrup, which figures comprise 21.7 tons and 50.7 respectively sent to the United States. Sugar color has been exported to the extent 1788 (1852) tons, the bulk of which was sent to Great Britain.

The government of Roumania has submitted to the legislative chambers of the country a bill which provides for a consumption tax of 15 centimes for one kilogramme of sugar, whilst a bounty of 16 centimes shall be granted to all factories now already in operation or to be established in future. The bounty, however, shall be given only up to the year 1904. But bounty must be given whenever sugar is going to be produced, and it is in general intended to grant it for a certain period, but when the latter has elapsed the institution has grown so firmly rooted that it is difficult, if not impossible, to put a stop to it, but it has become almost an economical axiom that any country desirous to have a sugar industry of her own must more or less highly pay for that advantage, be it in the way of a protectionist tariff or in the way of bounties, and in fact the injury done to the public is not so very large, as by these subsidies production is stimulated and the price of the article depressed proportionately.

A number of brown coal pits have formed in this country a syndicate, and are, as in this way competition is shut out, exacting much higher prices. But different sugar factories who were amongst the largest consumers of this kind of fuel are not inclined to let themselves be victimized by the syndicate in question, and have, in a meeting held on February 8 at Brunswick, resolved to form, as it were, a counter syndicate for the common purchase of coal, and a provisional entry has shown that the factories represented in the meeting will need upward of 3,000,000 hectolitres, and it is thought that the figures will soon be doubted. The managers of the coal works will, I suppose, soon become aware that a customer like this is not to be trifled with.

The markets exhibited in the week under review a decided improvement, partly due to the reduction of the estimate of the beet crops, partly to advices that the American refiners had bought some lots in the European markets, and, as besides the February tenders had been placed without difficulty, a more confident tone was prevailing, and the prices took an upward turn, and thus recovered part of the losses sustained of late. Actual 88 per cent. sugars rose in Magdeburg from 9.90@9.12 marks to 10@10.30 marks, and delivery February is quoted in Hamburg at 9.25 marks f. o. b., as against 9.02 marks a week ago. Refined continued in general quiet, and only toward the close a little more activity was noticeable.

ROBERT HENNIG.

British Honduras.

[Special Correspondence.]

TOLEDO, B. H., February 22, 1898.

Editor Louisiana Planter: It is now well on into the time we are used to calling dry season, but the dry season is not here. Last week was dry and began really to look like the dry season, but heavy showers yesterday and day before have saturated the ground and it is very annoying to sugar makers to have mud stirred up around the buildings.

Nearly every plantation in this vicinity is running at present, and improved sugar is the order of the day. Several plantations have installed sulphur machines which improve their sugar, and Dr. Pearce, owner of the Eldredge plantation, is now using his vacuum pan and has installed a centrifugal which now enables him to make damp white sugar. This is the first sugar of that grade that has ever been made in British Honduras.

One planter who does not read THE SUGAR PLANTER, or any other paper for that matter, says he does not believe in these new fangled ideas; that he will stick to the old way and make the best sugar too, and among other things in favor of his sugar he mentioned that in shipping to New York last year he weighed it at the sugar house and again as it went aboard, and it was weighed again at its destination with a gain each time of about five pounds to the barrel. "This," he said, "showed there was no loss in drainage." "And what did your sugar test?" I asked. "Ninety-eight, I believe." "Oh, no," I said. "It would be impossible for raw muscovado sugar to test 98 deg." "Well," he said indignantly, "I'll bet \$200 against a good piece of land that there is less dirt in my sugar than any other made in the country." "Oh," said I, "without denying that, I can't agree with you that your sugar tested 98 deg." "Very well," he continued, "I am going to ask you a question: How is it that the refineries in New York can take a pound of such sugar as mine and make a pound of pure white sugar out of it and a gallon of golden syrup besides?" I told him they must work it on the principle of the man in the parable of the pounds who made his pound increase to ten pounds.

TROPIC.

Mr. Frank Nicholls, of Ridgfield plantation near Thibodaux, was in the city during the past week.

BEET SUGAR.

Chino, California.

As a matter of fact beet planting has been going on all winter. On October 18 last the sugar company commenced to plant experimental patches to watch the result of winter planting, continuing from time to time in small plots until up to February 19. There was thirty-two acres planted this way. This of course is a part of the experimental work carried on every year by the company to test the habits of the beets under every possible condition.

The first actual planting for this season's crop, however, was on February 12, when Mrs. Anderson planted nineteen acres. Since that time the company and farmers have planted some, and up to yesterday there were eighty-one acres planted.

The sugar company has under contract to date 11,000 acres, and will probably have a few small contracts yet to come in. This acreage, however, will not be very much increased.—*Champion, February 25.*

Ogden, Utah.

In accordance with the announcement in last Saturday's *Bugler*, Messrs. Pingree and Austin held meetings in Willard, Three Mile Creek and Brigham on Tuesday. The meetings were very well attended; there was talk to the point; questions and answers, those in attendance showing much interest in the proposition. In brief the owners of the proposed Ogden sugar factory agree to pay the Boxelder county farmers \$4 a ton for the sugar beets at the factory; the railroad has made a rate of 25 cents a ton, leaving a balance of \$3.75 per ton for the raisers. It will require fifteen pounds of seed at 15 cents per pound to sow an acre. This should produce twelve tons. There should be a net profit of \$10 to the acre. The Ogden sugar factory will have a capacity of devouring 700 tons of beets per day, so there is not much cause to fear an overproduction of beets. As to the sugar supply the United States imports millions of pounds each year.

In all three towns contracts were signed for raising many acres of beets.—*Brigham Bugler.*

Salinas, California.

The steam drum of the engine operating one of the Spreckels steam plows exploded at King City, Tuesday afternoon, and a piece of it fractured the skull of a workman named S. B. Horner. It will take about two weeks to repair the machinery, says the *Salinas Index*.

Eddy, New Mexico.

A. J. Crawford, who is feeding sheep at the sugar factory, brought in a bunch of about 1600 last week from his ranch, and now has them on alfalfa and beet pulp. This makes about 2500 head of sheep in the corrals near the factory, presenting quite an industrious appearance. The sheep will lamb there, the season having already commenced. Mr. Crawford also received by express four pure-bred Cotswolds, from Canada, one buck and

three ewes. The buck weighed over 200 pounds, and his wool measured over a foot in length. Sheared soon after his arrival here, the fleece weighed nineteen pounds. He expects to greatly improve the grade of his herd by this addition. The sheep being fed on alfalfa and pulp continue to show the good effect of the diet. They are taking on weight rapidly.—*Pecos Valley Argus.*

Another Beet Sugar Factory.

After much discussion it has been decided to locate the new sugar factory for Santa Barbara county near Santa Maria. The San Luis Obispo *Breeze* gives the following particulars of this enterprise:

The directors of the Union Beet Sugar Company have at last made their decision. The new sugar factory will be constructed on the Guadalupe Lake. This news was telegraphed to Arroyo Grande and Santa Maria Wednesday afternoon. At Santa Maria there was a great rejoicing over the sugar company directors' decision. And indeed the people of that city and of the Santa Maria valley have cause to rejoice. This is their day of fortune, and the people throughout San Luis Obispo county will join hands in congratulating their lucky Southern neighbors.

The exact location of the factory is to be on the northeastern corner of the Guadalupe Lake, at a distance of about four and a half miles from the town of Santa Maria.

A surveyor is already upon the proposed site, which was bonded from Goldtree Bros. some time since. He will decide upon the plan of drainage and the grounds for the factory.

Surveyor H. Delftrich of this city received orders to-day from the Pacific Coast Railway Company to outfit for a surveying campaign for the railroad. He goes South to-night.

The building of the factory begins as soon as the site can be leveled and prepared, which work will consume but a few days. Machinery sufficient to use about 500 tons of beets per day will be placed in position to handle the crop of the present year, although the factory building itself will be made of sufficient size to accommodate a plant with a capacity of 1000 tons per day. It is expected that the increase in machinery will be made next year.—*L. A. Times.*

Why Not Produce Beet Seed?

The importation of beetseed into the United States from Europe will this year aggregate nearly forty car loads, or about 1,000,000 pounds. The money paid for that seed and the fact of its importation are of themselves directly comparatively small matters; but when the varied interests depending upon that seed are taken into account, it becomes a very important matter. So long as each year's importations continue undisturbed it may be well enough to allow European skill, patience and cheap labor to produce this seed. But what results would follow any check to our trade relations with these European countries! And a disturbance of our trade relations is always a possibility, and on short notice. Millions of

capital is already invested in beet sugar factories, which is supplemented by other millions of capital in beet farming equipments. The failure for a single season to get our seed supply from Europe would tie up this entire industry in America, with the exception perhaps of Utah, where wise foresight is paving the way to the production of all the seed used there. There is no apparent reason why this country, with its beet sugar industry expanding at a wonderful rate, should not produce its own seed. The very fact that we produce richer beets from the French and German seed than are produced in those countries from the same seed should be conclusive proof that the production of seed here would tend to breed the beets to a higher standard rather than to a lower one. Having the natural conditions to reach this result, it remains but for a skilled application of scientific principles, with a reasonable amount of capital, to make a success here of this cognate branch of the sugar industry. American enterprise ought to see and take advantage of this opening in the face of the present wonderful development of the industry.—*Chino Champion.*

More About Beet Seed.

We notice that the ideas we have frequently expressed, that this country, with its rapidly growing beet sugar industry, should be independent of foreign countries for its beet seed supply, are recognized even in Europe, where each of the sugar-producing countries endeavors to grow its own supply of seed independent of its neighbors. Recent correspondence from France says: "Repeated experiments have shown that the seed of the country, everything taken into consideration, is superior to the imported beet seed, yet the annual importation increases. Home growers are alarmed at these conditions, and it is said that if Germany should forbid the exportation of its beet seed, French growers could not meet the manufacturers' demand. There is a proposition to increase the duty, and thus possibly bring about some change for the better. The annual consumption of beet seed in France is 7500 tons. There is a tendency for the factories to produce their own seed; thirty-five have put this into practice."

In the same line the following from the same correspondent will be of interest as showing the cost of the selection of mothers on a beet seed farm:

In a beet selecting laboratory 337,389 analyses were made in forty-one days, or an average of 8227 analyses per diem, with two polariscopes. The cost was \$576, for filters, etc., \$503, or \$1079, which places the cost of each analysis at \$0.003. Of the total beets analyzed, 263,587 were kept for mothers. If these beets carry the total cost, the expense is \$0.004 for each beet used. The plant costs \$700. The interest and wear and tear must also be considered.—*Chino Champion.*

Sugar Beet Notes.

A little rain would be acceptable to the beet growers at Chino. In fact, they need it badly. The Beet Sugar Manufacturing Company has

been chartered at Brant, N. Y., with a capital of \$600,000.

The average price of sugar beets is about \$4 per ton the world over, delivered at the factory. The average yield per acre is from twelve to fifteen tons.

A San Francisco dispatch says that hitherto the sugar crop from Hawaii has been shipped on sailing vessels around the Horn to New York City, but recently an arrangement has been made with the Southern Pacific Company whereby this plan has been changed. The sugar will now be brought in vessels to San Francisco and shipped through to New York City by rail.—*Pecos Valley Argus*.

The Enormous Prospective Development of the Beet Sugar Industry in the Arid Lands of the West.

LEHI, Utah, February 22, 1898.

Editor Louisiana Planter: The success that has attended the Lehi sugar factory since it was built demonstrates beyond a doubt that a great portion of what is known as the arid West is by nature adapted to the growth of the sugar beet. It is true that the experience gained by the farmers has enabled them to produce beets that carry a higher per cent. of sugar than was contained in the beets raised the first year, but it is none the less true that the rich soil and magnificent climate of this region is well adapted to this crop. The success achieved and the splendid results obtained are due in a great measure to the management of Mr. T. R. Cutler. He is known as one of the foremost business men of the State, and in the management of the affairs of the company he has displayed executive ability of the highest order. In the adjustment of all differences that have arisen between the company and the farmers he has always evinced a desire to give them every advantage and help in the matter of prices of their crop, etc., commensurate with the best interests of his company. In piloting the pioneer sugar factory of the Rocky mountains through its experimental stage, Mr. Cutler has been ably assisted by Superintendent C. A. Granger and Mr. Geo. Austin. Mr. Granger had spent a number of years in connection with the sugar industry before coming to Utah, and the knowledge and experience thus gained have been of great benefit to the Utah company. Mr. Austin is one of the most intelligent and practical farmers in our community, as well as a keen observer, qualities that have eminently fitted him for the position of superintendent of agriculture. Mr. Austin devotes a great deal of his time to the beet industry in other localities, always displaying a willingness to give interested parties the benefit of his knowledge and observations. Mr. Cutler has been singularly fortunate in the selection of his assistants, not only in the case of Messrs. Granger and Austin, but also in the case of Chief Engineer H. Ingalls, one of the best and most practical machinists in the State, and Messrs. L. S. Moore and J. H. Gardner, both experienced sugar boilers. Mr. Cutler's ability as a general manager of large enterprises has been recognized by capitalists in

various parts of the United States, so that he can command an almost unlimited amount of money for the building of new industries. It is to his energy and hard work in a great measure that is due the credit for the successful launching of the enterprises at Ogden, Utah, and La Grande, Oregon. Both of these plants are of modern build and equipment, and will be identical as far as machinery and equipment are concerned. The only difference is in the buildings. Those at Ogden will be built of steel and brick; at La Grande lumber will be used in connection with steel instead of brick. The main building will be 285x65 feet, with a double row of ventilators, running the entire length of the building on top. The machinery will consist of a double set from the diffusion battery to the vacuum pans. In reality there will be two well-equipped, up-to-date plants of 350 tons capacity inside the walls of one factory. One set only will be put in place this year, but everything will be so arranged that the duplicate can be placed in one season without interfering with the work of sugar making.

One very important feature of the new plants is the total absence of foreign-made machinery; every piece is the product of American shops and labor. This is in the main true of the Lehi plant. In speaking of the relative merits of American and foreign-made machinery, Mr. Granger said that the former was superior to the latter both in design and construction. American builders were more generous in their plans and materials, so much so that an American-built factory could cut from 10 to 15 per cent. more beets than the guaranteed capacity, while a factory of European build would cut less instead of more than the capacity claimed for it. Mr. Granger referred to the Lehi mill as an illustration of this fact, of a guaranteed capacity of 300 tons; yet for the two past seasons an average of 344 tons of beets had been cut daily; while mills of the same capacity he had visited in Europe had averaged but 288 tons. Again, a factory of American build of 800 tons capacity can be readily handled with forty-five men to the shift, while the European will require eighty to ninety.

In the economical use of steam American machinery is vastly superior also. During my connection with the Lehi factory I have demonstrated this point to my satisfaction from careful observation. I have found that it requires but about 13 per cent. of the weight of beets worked in fuel to generate sufficient steam to run the mill. These are questions of great importance. That Mr. Granger is correct in his premises needs no further proof than the fact that after carefully investigating the results in Lehi and from observations made in European countries, Mr. Cutler and his associates have decided to equip the plants at Ogden and LaGrande with American-made machinery.

The old and slow process of crystallizing the low-grade product in settling tanks is done away with at both places, the more modern and much superior process of *crystallizing in movement* being substituted by Dyer & Co. in their California factory last year and found to be a success. Mr. Granger also said that he

did not know of a single factory in this country equipped with European machinery that had been a continued success unless it were the one at Watsonville, and that had been remodeled until little of her original plant was left.

Ground for the foundation of the Ogden mill was broken Monday, February 21, the organization of the company having been effected some time ago, with David Eccles, president; Joseph Clark, general manager, and Job Pingree, superintendent of agriculture. Work will be commenced at once and pushed with all possible speed, in order to be ready for this season's crop. Messrs. E. H. Dyer & Co. were awarded the contract for the machinery. This firm will also superintend the working of the mill during its initial run.

Mr. George Austin has been in Weber county for the past two weeks talking to the farmers on beet culture. During this time he has conversed with about 1000 farmers, many of them expressing a desire to raise beets. Twenty-three districts have been organized in the county, with an agent in each one. The work on contracting is going steadily on, with good prospects of securing the acreage wanted, which is 3500.

Although no company has as yet been organized at La Grande it is expected that it will be effected in a short time. General Manager Cutler and C. A. Granger left for there Monday morning on business connected with this institution. They will also address a convention of the farmers of the Grande Ronde valley on beet culture, having accepted an invitation extended to do so by parties interested in this subject. As an evidence of the deep interest taken in the sugar industry by the people of Oregon, it may be said in passing that the farmers of the Grande Ronde valley have raised a cash bonus of \$80,000, which will be paid to the company erecting the mill, of which Mr. Cutler is general manager. They also bind themselves to plant 3500 acres of beets for five successive years. That the location of a sugar factory there will be of great benefit to the people there is no doubt; the soil and climate is naturally adapted to the growth of the roots. Beets raised in that valley have been analyzed in the laboratory of the Utah Sugar Company, in Lehi, and found to contain a higher percentage of saccharine and of purity than beets raised in Utah. So the people concerned are fully aware of the conditions existing there. Mr. Granger will superintend the placing of the machinery in the buildings, and also the work the first season.

In addition to these two magnificent plants that are assured, arrangements are well under way for the erection of one similar to the Lehi mill by the Lake Bonnaville Land and Irrigation Company on their holdings in Millard county, Utah. This company will expend in the neighborhood of \$1,000,000 within the next two years in building an immense canal from the Sevier river. With this canal finished, thousands of acres of the best land within the borders of this State will be brought under cultivation. A large part of this land is well adapted to raising sugar beets, and will provide homes for hundreds of families, as well as remunerative employment to idle labor.

The Mt. Nebo Land and Canal Company will also build a mill of the same capacity as the one at Lehi, in the south end of the Utah valley. There is also strong talk of another one in Weber county to be located in Plain City. The people of that progressive locality are confident that enough land can be devoted to beet raising to keep two factories busy, so that it is within the bounds of reason to believe that before the close of the present century, Utah will produce every pound of sugar consumed by her people and also be in a position to supply her less fortunate neighbors.

One of the chief factors in the establishment and successful maintenance of industrial enterprises in the West, and I may add in any locality, is adequate transportation facilities. Railroads can do a great deal to assist or retard the growth of all enterprises. Here in Utah we have been fortunate in this respect. The Rio Grande Western Railway is keenly alive to the vast importance of establishing industries within the borders of our State and puts forth its best endeavors to assist them in every material way. It is essentially a Western road, and uses its time and money unsparingly to advance the interests of the West in general and Utah in particular. Controlled by progressive, energetic business men, it will always be a potent factor in the development of Utah and the great West.

A. H. C.

Trade Notes.

A. H. White.—On the back cover of THE PLANTER will be found the advertisement of Mr. A. H. White, who has for many years been one of our leading dealers in steam pipe and boiler coverings, lining papers for hot rooms, roofing, and asbestos materials, all of which are in extensive use by our sugar planters. Always having on hand plenty of good material, and knowing from long experience exactly the needs of this local country, Mr. White is exceedingly well equipped to cater intelligently and promptly to the wants of the sugar planting community, and doubtless they will continue to accord to him the patronage they have so liberally given him in the past.

Moore's Cane Hook.—This implement has now come into such extensive use that a description of it is hardly necessary. It is to be found on almost all the large plantations in the State, and the saving effected in the expense of planting windrowed seed cane is said to be of the greatest magnitude.

Realizing the necessity for economy in all branches of work, Mr. John T. Moore devised this hook, after a careful study of the economical and practical features involved. and by its use did away with all hoes and hand-hooks and reduced the work of the putting the cane in the ground to a minimum. One hook will take sufficient seed, without injury and in good order, from windrows, in one day, to plant from eight to nine acres of cane. A fluke is used to bar off windrows, then the same man, mule and fluke to fluke off the dirt from the top of the windrows, and after this the cane hook culls the seed crosswise from windrows. Mr. Moore's advertisement is on the back cover of THE PLANTER, and he sells the hooks at \$8.50 each.

The Milling Plant and High Extraction.

By a strange coincidence the two innovations which have latterly proved of such importance in the advancement of the tropical cane-sugar industry were put in practice here in Louisiana about the same time—more than fifty years ago—namely, the multiple effect evaporation of Rillieux and the compound crushing of Stillman. The former lived to see the splendid success of his system, but the latter met an untimely end by a boiler explosion on a Mississippi river steamboat. Stillman, intellectually in advance of the times, saw the advantages which would accrue to the industry by double crushing and added the two-roller mill to the then existing three-roller mill, but the adjunct met with but little favor from the fact that the impurities added to the juice proved detrimental to the quality of the open-kettle sugar then made, and the lowered price counterbalanced the increase in quantity. About thirty years elapsed before compound crushing commenced to attract the attention of cane-sugar producers the world over, and now the practice has become virtually universal where multiple effects and pans are used.

The decline in the value of finished products has had the same effect on the cane sugar industry as on all others of like magnitude—caused producers to strive to utilize everything valuable in the raw material. The consensus of opinion at the present date favoring the milling rather than the diffusion plants for the extraction of juice from tropical cane, mill makers and others in the different countries are striving to so perfect the *tout ensemble* that results may be reached probably equal to the average of those obtained by the latter process, thereby obviating the many complications and extra expense. Divers devices and combinations have been tested, and much time, ingenuity and capital expended, yet the three-roller mill is in greater demand than ever, and not likely to be superseded in the near future. The opinions of purchasers differ as to the desired length and diameter of mills, and constructors, as a rule, can not be held responsible for the efficiency of all the varied plants of their make. Nearly a quarter of a century ago a noted European maker, when a 42-inch mill was being inspected in his foundry, remarked to the writer: "Were I a planter I would not order such a mill—it is too large in diameter; but we must comply with the wishes of our customers." When Messrs. Leeds & Co. were constructing the 60-inch mill, with 36-inch wrought-iron shaft, for the Caffery refinery, the writer, when inspecting shaft and shell, remarked to Mr. Leeds: "I would prefer the shaft without the shell," and he replied, "I am not sure but what you are right." When discussing the diameter of mill rolls with Mr. Daniel Thompson, of Calumet, he stated: "If I could get the needed strength in shaft and shell, I would prefer smaller diameters." Today, two-roller mills of large diameter have little or no value, there being no demand for such.

A careful study of the diagram of the

60-inch or even the 48-inch rolls, when compared with that of the 28-inch mill, will disclose the fact that rollers of such large diameters when in operation exert a pressure on the constantly moving bagasse so nearly approximating the maximum at the point of would-be contact, so removed therefrom that the contained juice, where the greatest pressure is applied, has not time to make exit through the so closely compressed fibre (even with a slow periphery speed), and a portion of the moisture which may not be drawn forward by the powerful capillary attraction (when the slightest pressure is removed) tends to escape with the fibre, the result of which is powerfully milled yet moist bagasse, consequently a disappointing extraction.

Regardless of diameters mills now crush volumes of cane far in excess of what was thought possible not many years ago, and constructors realize more and more the absolute necessity of having them very powerful in all their parts, as factory proprietors begin to demand that risks of breakage during the campaign must be brought to a maximum, even if they must pay a higher price for superior material and workmanship. As mills must be made with great strength and engines with adequate power to propel them, such that superior extraction may be constantly had when the plant is in operation, couplings must be weak enough to give way, or the Rousselot side bolt threads must strip, should foreign, hard substances by chance or otherwise find their way between the rollers, or serious breakages may result, necessitating possibly extremely costly delays.

Relatively small diametered mills have so many advantages over large ones that in time they will be made to suit requirements, not individual taste, as such must ultimately be sacrificed to the prerequisite efficiency. As double and triple crushings must be resorted to, the width of the turnplate should be reduced to a minimum, and consequently the new departure of placing the king-bolts out instead of inside the two lower mill roll journals will likely become general.

Extremes in speed or feed are detrimental; the former may range from 16 to 24 feet, according to the temporary requirements of the factory; yet about twenty linear feet per minute will be found a happy medium. As to the feed, when very thin, then the cost of crushing becomes too great, and when too thick, a noted loss of juice is incurred, and yet no accurate data can be had as to how much cane a mill of ordinary size, 6 feet long, can crush with the greatest economy per hour. At one time it was thought that 100 tons per foot of length, equal to 600 tons per twenty-four hours, was excellent work, but now the amount is exceeded in some instances by more than one-third. To secure a high juice extraction there is a tendency to increase the pressure and decrease the saturation. To accomplish the end in view solid rolls (the upper and bagasse rolls only—there being but a relatively small amount of strain on the receiving roller) with piano wire to protect the soft metal may be resorted to, as wire is used in the construction of cannon, and why not in the protection of mills!

Given a milling plant with all the modern improvements and for double or triple crushing, with all the adjustments nicely made by an intelligent engineer of long experience; yet a very high juice extraction can not be had without that regularity in the feed which is rarely or never had in any country. In recent years numerous devices have been used to expedite the transfer of canes from carts to cars in the field and from each into the carrier, and so much ingenuity has been displayed that one is led to infer that the time is not far distant when a thousand tons of cane per day (and even more) of twenty-four hours will be delivered to the crushing plant with but a limited amount of manual labor—the quantity ample for the requirements of the factory to work perhaps nearly up to its capacity, yet deficient in the all-important essential of the utmost regularity, due perhaps to divers causes, among the number the varying lengths and more frequently the very crooked condition of the canes.

Ameliorations will become accomplished facts when pecuniary losses from existing evils are fully appreciated. Where milling plants crush from 30,000 to 60,000 tons of cane during the campaign, a loss of two or even five pounds of sugar per ton of cane aggregates thousands of dollars in cash, to save which should be the aim of the factory owner. Visit some of the cane yards when the factories are in operation, and witness what transpires during the twenty-four hours. At intervals the cane cars arrive, some having less than three tons, and others possibly more than four, the former with long, crooked canes, and the latter straight canes. The yardmaster has no option and sends the loaded cars to the carrier. Once there, the cane shed boss with his nondescript gang has the canes pulled onto the carrier with hooks. Bunches are the result—the crooked canes present the appearance of a heavy feed, and the straight canes the contrary; yet the constantly moving carrier conveys its irregular load and dumps it into the chute, from whence the canes find their way between the mill rolls. A fresh gang has come on, the supply of juice in the clarifiers has become scant and a heavy, bunched feed for an hour or two finds its way to the mill; but later on, the men become fagged, a material diminution in the feed is seen in consequence. At one time the mill may have been making excellent bagasse (when the feed was adapted to the set of the rollers); but latterly pounds of sugar per ton of cane were being conveyed to the furnaces in the badly crushed bagasse. The engineer, finding it impossible to secure a very uniform feed, has set the receiving roller in a manner such that the space will not permit of the passage of inordinate bunches, and grimly submits to the inevitable, knowing full well that better work could be done if conditions were different.

Stillman, actuated by only sight, taste and touch, conceived and originated double crushing to increase extraction; since then the scales, polariscope and chemical analysis combined, have disclosed noted losses in juice, even with compressed milling under average conditions, and it remains for inventive talent to so treat

the canes that the adjuncts and adjustments to perfect crushings will virtually free the woody fibre of juice to that point where it may cease to be remunerative. Prior to the commencement of the campaign the proprietor informs the engineer that he expects to deliver, say, 800 tons of cane per day of twenty-four hours, and the mill rolls are set to grind about forty tons per hour. When crushing begins the variation in feed is such that instead of a 76 per cent. extraction (the woody ratoon being milled with 12 per cent. fibre) being had, it amounts to not more than 70 per cent, a noted loss with a powerful plant and a very competent engineer.

The possession of power and strength can not certainly remedy the defect, as it lies in the feed. A six-foot mill, grinding forty tons of cane per hour, with a periphery speed of twenty feet per minute, will, in the 120 square feet of canes with 12 per cent. fibre, have one and one-third pounds of fibre per square foot, if feed is absolute; when it varies juice takes the place of solids and defective extraction results therefrom.

An approximation to a constant feed of fibre may be had in divers ways—firstly in final crushing, then the adjustment of the bagasse after first crushing where there are three mills, and finally the proper preparation of the canes prior to milling. In the first case the bagasse can fall into a receiver, from which it can be fed automatically and uniformly to the mill rolls; then again where whole canes are crushed the carrier can be speeded to seventy feet per minute to obviate bunches, and the first mill can be well closed and speeded to nearly thirty feet per minute to secure a disintegration of fibre and high cell rupture, after which the bagasse can as in the former case be automatically fed to insure a steady and uniform pressure when the fibre is subjected to final crushings. The *modus operandi* par excellence will be to prepare the canes for crushing—the cut or comminuted pieces to be fed to the mill rolls as required from a supply always on hand in excess of immediate requirements.

THOS. MANN CAGE.

Terrebonne, La., March 1.

The Rice Industry in Southwest Louisiana.

[A paper read by MR. O. L. CRIPPEN, before the Louisiana State Agricultural Society, at Crowley, January 27, 1898.]

We find in a few instances the native products of India growing in North America, but seldom do they reach that perfection of growth, development and maturity to be found in their native haunts. One of the most marked and noticeable exceptions to this general rule is to be found in the growth of rice in Louisiana and the Carolinas. It is seldom that an agricultural product can be found that has been taken from the haunts of its native home in far away India and transplanted in America, where a peculiarity of soil and climate could be found so similar as to allow such a degree of success as has been met with in the raising of rice in Louisiana. Unlike the most of our food products, the origin of rice is shrouded in mystery, or perhaps it were better to say that history of its origin was lost during the mute and unrecorded antediluvian ages, of which history tells us so little. Chinese history tells us that twenty-five centuries before the Christian era rice was introduced into China, but,

like all other histories, it neglects to tell us of its origin. And for all we know, Mother Eve might have made rice fritters and gumbo for her husband in the Garden of Eden while Adam was flooding his plantation or pulling indigo weed out of his rice field. Years before the birth of Christ Pliny also wrote of rice and its value as a food product. To whichever country is due the credit of its origin, the world of this nineteenth century is ready to doff its hat and bow in grateful acknowledgment of its having furnished the most valuable article of the food supply of mankind. A billion and a half of people are consumers of rice, and nearly two-thirds of this vast number of human beings depend upon it for almost their entire sustenance. So that a failure of the world's rice crop would mean starvation to almost ten hundred million people. I want to fix this idea, Mr. President, and impress it upon the minds of our rice planters of Southwest Louisiana; I want them to know and appreciate the vastness of this branch of farming; the magnitude and importance of the class of agriculturists to which they belong, and although the production of Louisiana, as compared with the world's total production, is unimportant and cuts but a small figure, a mere drop in the bucket as it were, still we can attribute to ourselves an importance and measure of greatness by an application of the same reasoning the Irishman used when he said that he and his neighbor Brown kept a hundred cows in one way and another; neighbor Brown kept ninety-nine and he kept the other.

The world's supply of rice annually amounts to 26,185,000 tons, of which—

	Tons.
India produces.....	16,800,000
Japan ".....	3,450,000
Java ".....	2,740,000
Manila ".....	1,800,000
Italy ".....	710,000
Ceylon ".....	480,000
United States produces.....	125,000

About one-half or 65,000 tons of which is produced in Southwest Louisiana. While Spain produces about 80,000 tons annually.

When we compare the crop of Southwest Louisiana, with her 65,000 tons, to the output of India alone with her 16,800,000, it requires a stretch of even the Irishman's imagination to demonstrate that Southwest Louisiana is raising rice. But, nevertheless, Mr. Chairman, Southwest Louisiana is in the business and she is here to stay.

It is said that "it is an evil wind that blows no good," and when almost 200 years ago a disastrous storm, such as the Atlantic is subject to, blew one of the trading vessels, on her way from one of the Southern Islands to Liverpool, out of her course and wrecked her in the port of Charleston, it blew with it to the people of Carolina the seed of prosperity and wealth in the form of golden grains of rice from which has sprung the prosperity of Southwestern Louisiana to-day. When Governor Smith, at that time governor of the colony at Charleston, received from the hand of the captain of that unfortunate vessel a small package of rice, he received with it the lever by means of which the thousands of acres of worthless lands along the coast of the Carolinas and Georgia were reclaimed and made to bear their share of the burden of feeding mankind; the lever by means of which the over-burdened and over-taxed colonists were enabled to meet the heavy burden laid upon them. He received with it the key that has unlocked the unbroken prairies of Southwest Louisiana that had remained silent throughout all of the past ages of time and made them to sing and chant the songs of industry and prosperity. It must have been a magic key indeed, Mr. Chairman, that has been able in so short a time to turn the bolts in a lock corroded by the rust of the centuries. Almost like the pressing of an electric button it has transformed these

silent prairies, with their wealth of natural resources unknown and unrecognized, into a scene of activity, development and progress that can not help but gladden the hearts of every man who rejoices at the prosperity of his neighbor.

Governor Smith, as a matter of curiosity and experiment, planted the small package of rice that was given him, and from this small beginning, directly traceable to an accident for which a chance wind was responsible, has sprung the rice industry of America. It was but a few years before the industry had spread over the Carolinas and Georgia coast country until in 1729, we find the colonies exporting 44,000 tons. During the next ten years the industry grew in magnitude, and in 1740 America exported to Europe 100,000 tons of rice. About this time Europe began importing from India, where rice is raised by labor costing only from three to seven cents per day. The colonies being unable to make their crop in competition with the cheap labor of other countries, the industry began to decline.

Like the origin of rice itself, it is uncertain when its culture began in Louisiana. Although it has always formed an important part of the diet of the native people of Louisiana, the early history of the industry in this State is unimportant.

The history of the growth and development of the rice industry in Southwest Louisiana and its possibilities for the future is what concerns the rice planters of to-day. Rice was first raised for market in Southwest Louisiana by the Germans in St. Landry parish, and although their operations were conducted on a small scale, they were sufficient to demonstrate the success of the experiment.

The traveler over these prairies of fifteen years ago would have seen only small patches of rice here and there, raised mostly for consumption by the families of the settlers. It would have required at that time no less than a prophetic vision indeed to have foreseen and predicted the results that have been accomplished during the past ten years. From this small beginning the rice industry has grown in the prairie parishes until to-day, from the Vermilion to the Sabine, it is the chief agricultural product.

Not only does it engage the attention of nearly every farmer and planter, but upon the industry depends the prosperity of nearly every other calling and enterprise in the country. Our merchants and professional men, real estate interests, our mechanics, our manufacturing industries, our churches and schools all alike depend for their material prosperity and support upon the success of rice culture. In view of these vast interests that are at stake and dependent upon the rice industry, it behooves the planters and the business men of Southwest Louisiana to cast about them the means of improvement. Every step taken toward the bettering of the quality of our output, every step taken toward securing an abundance of water for irrigation, thereby lessening or eliminating whatever degree of uncertainty there may be connected with making a crop, is a step forward and upward in the material prosperity of the State of Louisiana, and either directly or indirectly benefits every citizen of our great commonwealth.

Rice raising in the prairie parishes of Louisiana, generally speaking, may be said to have been a profitable enterprise. Especially is this true where it has been carried on by intelligent farmers who have appreciated the conditions essential and necessary to the successful prosecution of the industry. And while it has proven the stepping stone from poverty to affluence for some it has also proven the rock of destruction for others. Notwithstanding the general opinion prevalent that the rice planter enjoys all of the good things of life, and that he has nothing to do except fill up his sacks with rice to haul it to market, and then bring the sacks home filled with silver dollars, and even though

some of those just engaging in the business may anticipate such conditions, still the way of the rice grower is hard and oftentimes mighty wet. The most serious difficulty the planters of Louisiana have had to contend with is a water supply, or rather a lack of it. The season of 1892 and 1893, with its abnormal crop, proved a curse to the rice industry of America. The year was an exceedingly wet one, and from its experience our planters caught the inspiration that it would always rain, and that they could make abundance of rice even without levees, and although planted on a hill side. The lessons taught by the experience of the succeeding few years, when protracted droughts prevailed, although they proved the destruction of many of our planters, they stand out in bold relief, like lights on a dangerous coast, warning our people to steer clear of the rock on which so many wrecks have occurred.

The problem of securing a water supply, so serious in its nature, is fast being solved. The elements necessary are, first, an abiding faith in the rice industry and Southwest Louisiana; next, engineering skill backed up by capital. These three elements are revolutionizing rice raising in Southwest Louisiana; they are making it possible to raise water from our steep-banked streams to a height of from twenty to thirty feet by means of monstrous engines and pumps, and then sending the water throbbing and pulsating through miles of arteries and veins, in the shape of our canals and laterals, to cool the parched earth and furnish life and vigor to our rice fields.

The subject of irrigation is an important one. Nearly every country of the globe has its arid lands, which must be brought under the influence of irrigation before they are fit for agricultural purposes. The arid lands of the United States embrace 1,340,000 square miles, or 853,000,000 acres, of which 100,000,000 can be reclaimed by irrigation. Our government is spending vast sums in establishing irrigating stations, in sinking wells and building reservoirs, employing the best talent in the nation to irrigate the arid lands of the Western States. Southwest Louisiana is solving, without aid, her own problems, and our glory and prosperity is being added to in proportion to what we accomplish unaided.

Important as it is, water is not the only requisite necessary to the economical production of a rice crop. Our planters paid too little attention to the construction of their levees. Not all the pumps in Christendom can flood and keep flooded a rice farm without levees. The building of levees is one of the most important works upon the plantation, and they should never be attempted without first consulting an engineer. Upon the proper location of the levees largely depends the size and height of the levees themselves and the depth and amount of water necessary for the flooding of the farm. In the early history of the industry in Acadia parish it was not uncommon to see one edge of a rice field dry and the other side of the field covered with from 18 to 24 inches of water. Our planters have come to appreciate that this is an expensive way of flooding their land, as the same water required to flood a quarter section of land in this manner would be sufficient to flood half a section if judiciously used.

The clay subsoil found in Southwest Louisiana furnishes the best possible material for levee building, being almost impervious to water. It not only prevents the water from seeping through the levees, if properly built, but also prevents seepage of the soil itself. Our planters have seen the evil effects of light and insufficient levees, they have paid the price of experimenting, and from now on will be satisfied with nothing short of good substantial levees, built large and strong enough to prevent seepage and damage by heavy rains, and in most instances they will construct them in such a manner that in no part of their field

will the water be over from four to eight inches deep.

Another serious difficulty that the rice planters of Southwest Louisiana have met with is the constant tendency of our fields to run to red rice. We regard this as the most serious problem that confronts the American grower to-day. The deterioration of our rice seed is the only indication we have that possibly rice in Louisiana is out of its natural and proper sphere and latitude. Import fresh and pure seed rice of the Japan and Honduras varieties, and with the care and attention now being given it by the average Louisiana planter, in four years from 25 to 50 per cent. of the crop will be red rice. As to whether this great evil arises from the natural condition of our soil and climate, or whether it may be attributed to neglect and carelessness on the part of our planters, the result is the same. The evil confronts us, and it will require some hard thinking and eternal vigilance on the part of the planters to eradicate the red rice from our plantations and to keep them clean. We can not raise a crop of pure white rice though planted on new and clean land, if the seed is mixed with red, neither can you raise it if the seed is pure and white and there is red rice in the land. The only absolute certainty of raising white rice is to plant clean seed on clean land. See that the last spears of rice growing in the field and levees and in the corners is properly harvested, see that your harvesters and binders do not run over the rice in harvesting. When rice has been scattered in the field, either by storms, harvesting or staking, see that it is given a chance to sprout and grow, and then give the land a shallow ploughing. Harrow up the volunteer rice to the surface where the hot sun can get in its work and complete the killing process. In other words, thorough and persistent cultivation of the land will effectually kill out red rice.

When our farmers appreciate the benefits to be derived from diversified farming, this will inaugurate a rotation of crops, and the question of how to get rid of red rice will be settled. In our opinion, farmers are cultivating too many acres of rice and not cultivating it well enough. They are attempting to do too much to do it well. However, that our planters will soon arrive at the correct solution of this problem, as they have of every other difficulty they have met, goes without saying. Already there is a tendency on the part of our planters to devote a part of their farms to the raising of more corn and hogs, more cattle, cane, fruit and vegetables. We can not too strongly urge upon them the necessity of raising all home supplies. Over-production may force the price too low to be profitable to raise for market, but not too low for consumption, for this makes a market for their labor when they would otherwise be idle.

A comparison of the rice industry to-day with what it was twelve years ago in Southwest Louisiana shows an improvement and advancement that is almost beyond belief. Twelve years ago the days of the small fields of from five to ten acres prevailed; to-day witnesses rice raised in fields from 500 to 1000 acres. Twelve years ago the crop of these prairies were harvested with hand sickle and cradle and bound up by hand; to-day may be seen nearly 5000 self-binding harvesters at work, with steam threshers by the hundred. To complete the process, twelve years ago our rice fields were irrigated by damming up the small gullies and pumping the water directly onto the fields with small pumps that at the present time are regarded as toys; to-day, in every section of Southwest Louisiana, may be heard the steady beating and throbbing of the ponderous pumps and engines as they force over half a million gallons of water each minute through the hundreds of miles of canal and lateral ditches. Seven years ago the planters of this State were compelled to ship every barrel of rice they raised to the city of New Or-

leans, because it represented the entire milling capacity of the country, and because they were tied up and their crops were pledged to the moneyed interests of the city. To-day finds them, in most instances, free and independent commission merchants, and milling nearly all of their own rice at home in the dozen or more country mills which are owned and operated by the planters themselves. Twelve years ago the value of our agricultural lands was an unknown quantity; to-day they have a recognized and established value, they offer the very best of security and are being sought after for homes and for investments by people all over the United States.

Gentlemen, these are some of the things that the progress and development of the industry has accomplished in Southwest Louisiana. And the rice planters themselves, what shall we say of them? God bless them. They are the backbone and mainstay of our country; upon them rests the burden of our development and progress and the support and prosperity of our industrial enterprises. They are up early and late; they pay their debts, are sober, honest and industrious, ready at all times to put their hands in their pockets in the interests of Southwest Louisiana or those in need. They have only one weakness, and that is their wonderful capacity for water. By some the Louisiana rice planter is classed as an amphibious animal. Water is his native element, and like a fish he seems to be miserable when out of it. We have often thought what a glorious and happy time they would have had if there had been a couple of dozen Crowley rice planters with Noah in the ark. How they would have laughed with fiendish glee while the rest of the world drowned. From the time that their crop is planted until ready to harvest their continual cry is water, water, water. We heard a good story told of one of our rice planters, and it must be true, for it was told by his wife. During the drought last summer he was very sick, in fact he was speechless for two weeks, and during the entire time he kept asking for water, water, water.

And we suspect, Mr Chairman, that when our planters are through raising rice; when they have flooded their last field and harvested their last crop; when they go hence from this world, that some of them will still call for water, water, water.

Adulteration of Molasses.

The adulteration of molasses, which, as stated in these columns recently, is apparently increasing in extent, is the source of active discussion in the local molasses and syrup trades, and also in the South, as well as among buyers in various sections of the country. It appears to be almost the unanimous opinion that the mixing of glucose with molasses and the use of ingredients to brighten the color is being much overdone. There is a decided current of feeling here toward restrictive legislation, but as yet no positive movement has, as far as was learned, been taken. The present time is considered by many a favorable one for such action. Massachusetts on the first of the year put into operation a stringent law prohibiting the manufacture or sale of any adulterated article of food, except mixtures or compounds recognized as ordinary articles or ingredients of food, which must, however, be distinctly labeled as such, with the name and percentage of each ingredient contained stated. A new pure food law also went into force in Wisconsin on the first of the month. Connecticut has a law which by many is considered admirable, and other Eastern States have restrictions more or less binding. There

is a law upon the statute books in this State, but no appropriation was made to secure its enforcement, so that it has practically been a dead letter. If it were carried out, or a new law enacted and enforced in its stead, the trade generally would. It is urged, feel a material benefit, particularly in view of the laws now in force in surrounding States.

Several dealers in molasses were conversed with recently upon this subject. John C. Jubring, of Francis H. Laggett & Co., wholesale grocers, when questioned, said: "I think that the increasing distribution of adulterated goods is detrimental in a way to the consumptive demand. Many dealers who are forced by stress of competition to buy substitutes would prefer to handle the straight product. If a competitor, for instance, is selling what is claimed to be straight molasses at 20 cents a gallon, it is not easy to sell the pure article, which costs, say, 25 to 30 cents. I think that trade has fallen off somewhat. We certainly are willing to go on record as being in favor of a pure food law, which would prevent the sale of mixed goods altogether. We guarantee our own brands of New Orleans molasses to be absolutely reliable and free from mixture. We favor legislation which will protect the consumer, but we believe that such laws should be administered in a common sense way."

A representative of another large grocery house said: "There are many products which require restrictive legislation more than molasses. As a matter of fact, some dealers ask for the mixed goods, as they have a brighter appearance and are cheaper. The glucose used in mixing is not injurious, but it contains little saccharine matter. At the same time, I believe that every article should be sold for what it really is, and I would be in favor of regulations for mixed molasses similar to those governing the sale of oleomargarine."

A prominent dealer in both pure molasses and syrups said: "While we do more or less mixing, this is because we have a demand for mixed goods; we try to discourage mixing and certainly would favor a law requiring that mixed goods should be sold for what they actually are. The Connecticut law I consider perhaps the best, and I would be glad to see a similar one enforced in this State."

"The use of mixed goods here is ruining the trade in pure molasses. Ten years ago, for instance, New York imported over 20,000 hogsheads of foreign grocery molasses, while last year she imported only a little more than 2000 hogsheads, or in other words, only about as much as the city of New Haven, Conn. Boston, on the other hand, last year imported about 14,000 hogsheads. Molasses from Porto Rico is known to be pure for the reason that no article which could be used as an adulterant can be imported into the island."

Another representative of jobbing interests said: "I do not think that one-tenth the business in molasses is being done here that was done a year ago, largely, I believe, on account of the uncertainty as to the quality of the goods placed upon the market. It has pretty nearly killed the business. Porto Rico molasses, so-called, for instance, has been sold

for 16 cents per gallon, whereas its first cost laid down here is not less than 25 cents.

"If an active effort would be made for legislation, it would, I think, be successful, as the time seems to be ripe. There is no good objection to a restrictive law, and such a measure in this State would accomplish a great deal."

A member of another firm said: "The great trouble with pure food laws is likely to be that they are ignored or else they are administered in a narrow way. The officers are frequently without knowledge of trade conditions and ignorantly or carelessly cause a great deal of unnecessary inconvenience and hardship."

The Connecticut law referred to above in part follows:

"Any person who shall adulterate any molasses, or who shall sell, or offer to expose for sale, or who shall solicit or receive any order for the sale or delivery within this State, or for delivery without this State for shipment into this State, of any molasses adulterated with salts of tin, terra alba, glucose, dextrose, starch sugar, corn syrup, or other preparation of or from starch, shall be fined not more than \$500 or imprisoned not more than one year, or both. The delivery of any of the above-mentioned preparations, upon any order solicited or received within this State, shall be conclusive evidence that the order, upon which such delivery was made, was for such articles, and shall render the person soliciting or receiving such order liable to the penalty above described."—*New York Journal of Commerce.*

Trade Notes.

Messrs. J. B. & J. A. Cornell, of New York City, have taken over and are now running the WEST POINT FOUNDRY at Cold Spring-on-Hudson, N. Y. This firm is one of the wealthiest and most progressive in the iron business, and the adding of this well-known plant to their establishment means that it will again take a prominent place in supplying sugar-making and other heavy machinery of all kinds. The works have been thoroughly remodeled and modernized and their capacity increased about tenfold; electric motors driven by the most modern turbines have replaced the old water wheels; a standard gauge steam railroad connects every department with the New York Central & Hudson River Railroad (main line) and with the company's own docks on the Hudson river, at which they can load any vessel drawing up to 16 feet of water, and much improved machinery has been introduced. In addition to this the Messrs. Cornell are the largest manufacturers of constructional iron and steel in the United States, and have built some of the best known buildings in the country, notably the "Waldorf-Astoria" Hotel, the 25-story "St. Paul" building, the 33-story "Ivins" building (now in course of erection), etc. They are prepared to do work of this sort promptly and economically and will be glad to receive plans and specifications for estimate. They have recently opened a branch in New Orleans under the care of Mr. W. L. Dearborn, No. 404 Mechanics and Traders Building, as may be seen in our advertising columns,

who will give his personal attention to all matters relating to their business, and who hopes to be favored with inquiries and orders from all those requiring anything in his line.

Sears' Stock Feed.—Elsewhere in this issue will be found an advertisement of this well-known necessity, which has come into prominence by leaps and bounds during the past few years, and that its success was due entirely to its merits seems to be plainly indicated by the flattering testimonials, of which Mr. Sears possesses hundreds, and a few of which we print below. The proprietors of this food do not claim that it will cure every known ill with which the animal kingdom is afflicted, but they do claim that for animals that are run down, that need building up, that are out of condition it is without a peer. Immense sales are made daily all through the country, and our sugar planters should be particularly interested in it. It may save them many valuable mules, and Messrs. Geo. E. Sears & Co. ask only a trial, being certain from their previous experiences that if it is used once it will be used always. Their address is 416 Poydras street, New Orleans. Here are some few of the letters they have received:

RICHBEND SUGAR PLANTATION.
JOHN VEGAS, PROPRIETOR.
ST. JAMES, P. O., La., June 10, 1895.

Messrs. Geo. E. Sears & Son:

DEAR SIRS—Please find enclosed \$12.18 for invoice of Sears' Stock Condition Food. From three months' use of Sears' Stock Condition Food, I can say that it proved to be a splendid spring tonic; my stock improved a great deal after one month's use.

Yours truly, JOHN VEGAS.

ISLAND PLANTATION, September 19, 1895.

Geo. E. Sears & Son, New Orleans, La.:

DEAR SIRS—I will ship by train this morning 242 sacks good dry rice, free from red and grass seeds. We are having good weather now and will ship fast. I am well satisfied with the last sales. The chicken food first-class: no more sick ones. Combs are red and all healthy.

Yours, R. R. BLOUIN.

P. O. BERWICK, ST. MARY PARISH.
February 19, 1897.

DEAR SIRS—Please send (H) Fairview two dozen bags Sears' Stock Food. Oblige yours truly,

M. I. HAMILTON.

The food gives entire satisfaction, our sales are increasing rapidly.

PARISH OF ST. JAMES, CONVENT P. O.,
December 28, 1896.

DEAR SIRS—I have used on my place for the last two years your Sears' Stock Condition Food with advantage. It is of great value and its merits for keeping mules and horses healthy and in fine condition are unsurpassed. It is also well adapted to other stock, such as cows, hogs, etc. I have used it on chickens with good results.

Yours truly,

ALF. PLAISANCE.

The Krajewski Crusher.—Mr. A. F. Slang-erup reports to us that even at this early date he is kept busy closing contracts for crushers, having recently received orders for two from Mr. Godchaux—one to go on his Raceland place and one to go on Elm Hall. Besides this he has closed a contract for a crusher with Mrs. E. D. Burgulieres. These splendid adjuncts to the mill are becoming more and more appreciated in Louisiana, and such an

auspicious beginning would seem to indicate heavy sales for the coming crop.

The St. Charles Mansion.—This large apartment hotel, located at Nos. 822 to 826 St. Charles street, has recently been opened under the management of Mr. Emile Kuntz, formerly of the Hotel Renaissance, of New York, and is equipped to take care of both regular and transient guests in the best of style. The situation is an admirable one, being slightly removed from the turmoil of the extremely busy part of the city, yet close enough to the business centres to make all the principal establishments and places of amusement easily and readily accessible. Several lines of street cars pass the door, and planters and others visiting the city would do well to try the house, which is somewhat of an innovation in this community and bids fair to meet with popular favor.

Grunewald Music House.—It is with pleasure that we call the attention of our readers to the advertisement of the Grunewald Music House, of New Orleans, which appears in our issue to-day. The Grunewalds have been in the music business for a number of years, and have by honesty and fair dealing secured the confidence of their patrons. Their long experience enables them to select the best makes of pianos for this climate, and having abundant capital, they are able to sell cheaper and on better terms than their less fortunate competitors. In their magnificent emporium, No. 715 Canal street, can always be found a fine assortment of splendid musical goods, as well as the latest instrumental and vocal sheet music.

A New Light.

The record of experiments in the lighting of sugar houses is well nigh an endless one, and it is plentifully blotted with failures. The construction of most of our houses is such that they present innumerable corners out of which it is difficult to drive the darkness, and the ponderous apparatus prevents the free dissemination of light and casts heavy shadows where they are not wanted. The element of expense, too, is an important one, especially of late years, when sugar has had to be made on the barest margin of profit, and our planters have been able to make ends meet only by the most rigid economy and strict attention to every detail.

There has lately been exhibited at the St. Charles Hotel and also at the Southside plantation, of Messrs. O. A. & F. M. Ames, opposite Napoleon avenue, a light known as the Kitson Hydro Carbon Light. This light possesses many features of the highest value, and is generated from the ordinary headlight oil in use in sugar houses, requiring no expensive installations to operate it and giving an illumination of which the brilliancy is entirely out of comparison with the cost of operation—the latter being insignificant. Indeed, it seems to be, for many reasons, an ideal light for sugar house use; its simplicity, cheapness and effectiveness all commending it strongly to the attention of the sugar planters. The lights in the Ames sugar house are each rated at 800

candle-power, and it takes only one gallon of oil to supply each light from sixteen to twenty-two hours, the variation in time being due to the quality of the oil employed. When using oil lamps Mr. Ames says that he consumed about fifty gallons of oil every night, and then succeeded in getting only a greatly inferior light to that now given by the Kitson lamps, of which eighteen would be sufficient to make his house as bright as day in every part. The tank for the storage of the oil is connected with the lamps by a very small tube, of which the inside diameter is probably not more than one-sixteenth of an inch, and by the application of heat, which comes from the flame itself, the oil is vaporized, escaping, together with nearly one hundred times its bulk of air, from an open jet, where it burns with an intense white light of the greatest brilliancy. Extreme cheapness and high effectiveness are the two salient features of this light and it would seem well worth investigation by all our planting friends. It is handled here by the New Orleans Railway and Mill Supply Company, Limited, and they have the lights on exhibition at their salesrooms, Nos. 620 and 624 Camp street. As an actual test, however, the outfit at the Ames sugar house serves the purpose best, the lights being seen there in the work of illuminating a sugar house, which presents unusual difficulties of a constructional character.

Reciprocity for the English West Indies.

We mentioned last week that the Governor of Barbados had received directions by cable from the Secretary of State to send on direct to the British Minister at Washington a full return of the colony's imports, setting forth clearly the English and American portions; and we ventured to say that a similar order must have reached our own Governor. Our surmise proved to be correct, and we learn that the Governor immediately had the necessary information tabulated and prepared and dispatched to the States. It is evident that Mr. Chamberlain is sanguine of securing for the West Indian sugar industry temporary relief by means of a reciprocity treaty with the States, until the bounty countries have arrived at a decision as to their future policy; but we must not count upon any great benefit from a treaty of the kind as long as the bloated Sugar Trust remains in a position to regulate the price at which our sugar shall be bought. To enter into a reciprocal treaty, it will be necessary for us, as on a former occasion, to permit the duty we now collect on the American portion of our imports, although we have no differential duty against the same, and although the duty is in no sense protective, being imposed solely to supply funds to meet governmental expenses. The amount of income we shall be foregoing in this way will be considerable, probably not much short of \$100,000, and it is just possible that this will be refunded to us by the imperial government as part of the justice money which the mother country owes us as against the profit she is now making out of the destruction of our chief industry.—*Demerara Argosy, January 29.*

MARCH 5.

WEEKLY MARKET REPORT.

1898.

SUGAR.	February 26.	February 28.	March 1.	March 2.	March 3.	March 4.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Quiet
Strict Prime	3 3/4 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 1/2 @ 2 1/4	
Prime	3 3/4 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 3/4 @ 2 1/4	
Fully Fair	3 3/4 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 3/4 @ 2 1/4	
Good Fair	3 3/4 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 3/4 @ 2 1/4	
Fair	3 3/4 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 3/4 @ 2 1/4	
Good Common	3 3/4 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 3/4 @ 2 1/4	
Common	3 3/4 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 3/4 @ 2 1/4	
Inferior	2 3/4 @ 3	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 @ 2 1/4	Quiet.
Centrifugal.								
Plant'n Granulated	— @ —	— @ —	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	8 1/2 @ 8 3/4	
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 3/4 @ 8 1/2	
Choice White	— @ 4 1/4	— @ 4 1/4	— @ 4 1/4	— @ 4 1/4	— @ 4 1/4	— @ 4 1/4	— @ 8 3/4	
Off White	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	3 3/4 @ 3 1/4	
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow	— @ 4 1/4	— @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	8 1/2 @ 8 1/2	
Prime Yellow	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	8 3/4 @ 8 1/2	
Good Yellow	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	8 3/4 @ 8 1/2	
Seconds	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	Strong
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	Strong
Choice	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	
Strict Prime	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	
Good Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	
Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	
Good Fair	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	
Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	
Good Common	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	
Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Dull.
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	5.96 @	4.96 @	4.96 @	4.96 @	4.96 @	4.93 @	8.98 @	
Standard A.	4.84 @	4.84 @	4.84 @	4.84 @	4.84 @	4.84 @	8.86 @	
Cuba, 96, Cif.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Firm.
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	11s. 0d.	11s. 0d.	11s. 0d.	11s. 0d.	11s. 0d.	11s. 0d.	11s. 0d.	Dull.
A. & G. Beet	9s. 8 3/4 d.	9s. 8 3/4 d.	9s. 3d.	9s. 8 3/4 d.	9s. 8 3/4 d.	9s. 8 3/4 d.	8s. 9 3/4 d.	

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 4.40	Strong
Powdered	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 4.40	
Standard Granula'd	— @ 5.18	— @ 5.18	— @ 5.18	— @ 5.18	— @ 5.18	— @ 5.18	— @ 4.08	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5.01	— @ 5.01	— @ 5.01	— @ 5.01	— @ 5.01	— @ 5.01	— @ 3.91	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	Feb. 28	Tons	209,987
At four ports of Great Britain to.....	Feb. 19	"	89,500
At Havana and Matanzas to.....	Feb. 28	"	75,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MARCH 4, 1898.

	SUGAR.		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	750	30,109	2,963
Sold.....	750	30,467	2,963

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO MARCH 4, 1898.

	SUGAR.		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	19,816	1,287,809	172,489
Sold.....	19,816	1,259,346	172,489
Received same time last year....	81,124	1,183,419	198,907

MARCH 5.

WEEKLY MARKET REPORT.

1898

RICE.	Feb. 26.	Feb. 28.	Mar. 1.	Mar. 2.	Mar. 3.	Mar. 4.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	1 50@4 00	1 50@4 00	1 51@4 00	1 50@4 00	1 50@4 00	1 75@4 10	2 00@4 25	Active and strong.
CLEAN, Fancy.....	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @6	
Choice.....	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	Active.
Prime.....	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	
Good.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	
Fair.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	
Ordinary.....	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	
Common.....	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	2 @2 $\frac{1}{2}$	— @ —	2 @2 $\frac{1}{2}$	
BRAN, $\frac{1}{2}$ ton.....	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	12 00@—	
POLISH, $\frac{1}{2}$ ton.....	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	17 00@18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAR. 4, 1898.

	SACKS ROUGH.	BELS. CLEAN.
Received.....	6,981	—
Sold.....	14,743	3,981

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO MAR.
4, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BELS. CLEAN.
This year.....	438,555	8,808
Last year.....	374,465	6,754

Sugar.

The local sugar market was quiet and steady at the close of the week, with sufficient demand prevailing to promptly absorb receipts.

Molasses.

No open kettle molasses in first hands. Centrifugals strong.

Rice.

The rough rice market is steady, with moderate offerings. Clean is rather active.

Sugar in London.

The publication of the stocks existing in Germany at the close of January has had a good effect on the market, while a very favorable impression of future prospects has been produced. The deficit in the visible supplies shows no sign of being made up, while the steady and regular way in which supplies have come forward, owing to the open winter, has undoubtedly brought into sight the maximum of stocks at an earlier period of the year than usual. Nor is there apparently much chance of any important addition from cane-producing countries, though, at the moment, Cuban figures are heavier than were looked for. The increase, however, is expected to be short-lived, and, meanwhile, the American markets have become more active, with a tendency to higher prices. More attention to cane sugars has been paid here of late, but the selection continues very limited, while holders show no anxiety to press sales either in refining or grocery descriptions. The latter continue in small supply, owing to very large shipments of crystallized Demerara to the United States, and for this reason these sugars have been in better demand, and prices are 3d. per cwt. dearer. The imports of crystallized raws to London for the week ending 17th inst. amounted to 1394 tons, and for this year to 4821 tons, against 5284 tons in 1897.—*P. M. Review, February 19.*

Glucose Sugar Refining Company.

CHICAGO, Feb. 26.—Attorney General Akin has been asked to bring proceedings for a forfeiture of the charter of the Glucose Sugar Refining Company and test the Illinois anti-trust law. In making this request Attorney George H. Harding asserts that he has evidence to show that the concern is a trust. He intimates that the Attorney General has signified a willingness to begin proceedings if the evidence is sufficient. When the company was formed Mr. Harding owned \$200,000 worth of stock of the American Glucose Company. He opposed selling out to the new concern for the sum offered, \$2,000,000, and declared his company was more valuable than he Chicago Sugar Refining Company, for which the new company is said to have paid \$6,000,000. He was outvoted in the board and the company became the property of the Glucose Sugar Refining Company. Mr. Harding gained an injunction restraining the transfer, but it was dissolved.

Recently Mr. Harding has been taking the testimony of the promoters of the Glucose Sugar Refining Company, and this evidence, he claims, proves that a glucose trust has been formed. The attention of the Attorney General is also called in Mr. Harding's letter to the fact that he will be asked to take the matter before the grand jury, or at least that the evidence will be presented to that body, seeking for indictments against the promoters of that company. Some of the latter are conspicuous men in the State.—*New York Journal of Commerce.*

Personal.

Mr. J. B. Lyon, of Chicago, sugar planter and capitalist, was registered at the St. Charles Hotel last Friday.

Mr. R. R. Barrow, a prominent sugar planter and financier of Terrebonne parish, was in the city, on one of his accustomed visits, a few days ago and registered at the Hotel Grunewald.

Mr. George Hill, of West Baton Rouge parish, was a recent visitor to the city. Mr. Hill put up at the St. Charles Hotel.

Mr. A. W. Norman was in the city on Tuesday.

Mr. John Peters, of St. Martinsville, where he manages the fine Keystone plantation of the Petitebonne estate, was in the city on a visit last Sunday and registered at the Hotel Royal.

Col. W. H. Price, of the Acadia plantation in Lafourche parish, was a guest of the St. Charles Hotel during the past week.

Mr. C. O. Canclenne, a prominent resident of the parish of Assumption, was registered at the Grunewald Hotel on Sunday, having run down to pay the city a visit.

Mr. T. C. Glynn, of Arbroth, La., the well-known sugar boiler, was in the city during the past week, having come down to recreate a little after the labors of the recent campaign.

Mr. H. Shelby Sanders and Miss Mary Sanders of Iberia parish, were guests of the Royal last Saturday.

Mr. Wm. J. Turl was in to see us during the past week, and reported that he was stopping at the St. Charles Hotel and was prepared, as usual, to take orders for the best sugar wagons in the world. The Turl establishment has been supplying our planters with these necessary articles so long, and giving so much satisfaction, that it is safe to say that they will get their usual quota this season. Mr. Turl looks well, but he says handsome is as handsome does.

An Offer to Capitalists.

Breaux Bridge offers unexcelled advantages for a central sugar refinery, and we can assure capitalists that they have a first-class chance for a profitable investment in building such a plant here. The corporation owns a tract of land measuring about 90 acres (through which the right of way has already been obtained by the Southern Pacific Railroad Company to build a switch to the factory) which will be donated to whoever erects a refinery thereon. Let those who anticipate the erection of such a plant in Louisiana visit us, or write to our honorable Mayor or our editor for full particulars.

Our climate is admirable and healthy. Altogether, this region may be regarded as naturally the loveliest part of Louisiana. Come and see our beautiful country.—*Valley of the Teche.*

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—EXPERIENCED GERMAN AGRICULTURIST, beet sugar culture a specialty, desires position; best references. Address Box 309, Irvington, New Jersey. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Piety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98

WANTED—SUGAR HOUSE ENGINEERS, chemists and sugar boilers; none but first-class and experienced men need apply. Address E. H. DYER & CO., 310 Byrne Block, Los Angeles, Cal. 2-9-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; the best of references. Address EXPERT, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2439 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER, can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2620 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT ENGINEER; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louisa street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5536 Magazine street, New Orleans, La. 1-24-98

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address GOTTLIEB KOELLE, 1938 St. Louis street, city. 1-21-98

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBRE, Central, La. 1-20-98

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. MCCRACKEN BROS., Eola La. 1-20-98

WANTED—POSITION AS STORE OR BOOK-keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competence, reliability and sobriety. Address MAX P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR AS-sistant engineer; has had fourteen years' experience and can furnish first-class references. Address F. O. W., Lareauville P. O., La. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-18-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. GEO. H. DOUGLASS, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTA-tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address P. O. BOX 422, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. Franklin street, city. 1-13-98.

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address COMPETENT, Box 649, New Orleans. 11-21-97

WANTED—POSITION AS ASSISTANT MAN-ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address E. O. W., Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country. Good references on hand. Address A. B., 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; All references furnished. Address C. LAURENT, Whitecastle, La. 12-28-97

WANTED—ENERGETIC AND STRICTLY SO-ber young man wants position as manager of small store on plantation, on salary or commission; gilt edge reference as to ability and character. Address B. B., 1928 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address W. T., care Daily Journal, Plaquemine, La. 12-23-97.

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt edge references. Address B. B., 1928 Bayou Road, New Orleans. 12-17-97.

WANTED—A FIRST-CLASS PAINTER, AC-customed to country and plantation work, would like to obtain work either by the day or contract. Address BRUNO, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address R. V. H., 129 Decatur street, New Orleans. 12-15-97

WANTED—AN EXPERIENCED OVERSEER, married, age 40, active and sober, can be had for 1898, at living salary. Address BOB, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and Iberville parishes and some New Orleans merchants. Address SMITH, care this office. 12-16-97

WANTED—POSITION AS CLERK IN A COUN-try or plantation store; not afraid of work. Address CLERK, Postoffice Box 69, New Orleans, La. 12-23-97

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address E. C. MARSHALL, Cheneyville, La. 12-7-97.

WANTED—By a young lady of several years' ex-perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address XY Z, care PLANTER. 12-3-97

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address B, care of The Chief, Donaldsonville, La. 12-3-97

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address J. E. W. DAVIS, McCall, La. 12-4-97

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address HUSTLER, 1100 Dante street, New Orleans, La. 12-8-97

WANTED—A YOUNG FRENCHMAN, 24 years of age, desires a position in a sugar house or mechanical construction shops. Has had experience as mechanic in France and in the most important sugar houses in Cuba. Address M. N., this office. 10-22-97.

WANTED.

A Good Second-Hand Mill, 5 or 5½ feet, with Gearing 34 to 36 inches. State terms of sale. Address

R, Care LOUISIANA PLANTER, NEW ORLEANS.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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AND

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Acadian Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.

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ical, Political and Commercial.

EDITORIAL CORPS:

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When Does Sugar Cane Freeze?

The Florida *Agriculturist* quotes the subjoined paragraph from a California exchange under the caption of *When Oranges Freeze*. The quotation is as follows:

"Demonstrations show that an orange contains about 10 per cent. sugar and that the juices will not congeal above 28 deg. Fahrenheit. The effect of freezing upon an orange is to burst the small sacs which enclose the pulp, so that the juice oozes and evaporates through the skin, leaving the inside dry and spongy. This condition is not perceptible at first by the appearance of the fruit, but later it shrivels, and usually falls from the trees."

It would be interesting to learn from actual experiments at just what temperature sugar canes would freeze—that is, throughout their body, so as to produce what we call a splitting freeze. The top, or bud of the cane, is very tender, as are also the eyes at the joints, and these freeze at almost any point below 30 deg. F., sufficiently to materially injure them. Sugar cane, however, will survive such freezing for quite a long time, remaining in good condition unless the weather should be so warm as to make the soft tops rapidly decay, or unless the freeze has been just sufficient to kill the tops and not to kill the eyes, and warm weather induces sprouting from the eyes, which rapidly injures the cane. In the study of the orange question in California, it will be seen that it is claimed that the juice of the orange will not congeal above 28 deg. F., because of their 10 per cent. sugar content.

As our sugar canes are even sweeter than this, the freezing point of the juice in the bodies of the canes should be still lower, and as a matter of fact, it has been found on Louisiana sugar plantations that a temperature of from 30 to 28 deg. does not seriously injure the sugar cane, while a temperature of 26 deg. F. is apt to give us a splitting freeze, resulting in the subsequent rapid deterioration of the cane. It would seem to us that with artificial freezing apparatus it would be very possible to deter-

mine the actual temperature at which a splitting freeze does occur.

The Louisiana Sugar Planters' Association.

The annual meeting of this association, held last evening at its rooms on Carondelet street, was very interesting and largely attended, among those present being Messrs. Emile Legendre, E. V. Weems, George E. Mann, Richard McCall, W. C. Stubbs, Kemper, Dymond, Zenor, O'Neill, Soniat, Eastwick, Breau, Schmidt, Morgan, Bodley and others. President Emile Rost was in the chair and Secretary Dykers at his desk.

On motion, the reading of the minutes of the previous meeting was dispensed with, and the names of Messrs H. G. Morgan, Jr., and W. L. Dearborn were proposed for membership in the organization, both gentlemen being unanimously elected.

It being the annual meeting of the association, the chair announced that the reports of the officers were then in order, and said that he had prepared no written report himself, but would simply make a few remarks which would be pertinent to the occasion. He called attention to the fact that the association had not held all of its monthly meetings during the past year, the past summer and fall having been full of tribulations, such as those incident to the close health quarantine which had prevailed, but on those occasions when the meetings had assembled they had been very well attended and of a highly interesting and instructive character. He called attention to the fact that there were on the rolls of the organization 124 active members, embracing some of the best men in the State, and that they should make it a point to increase the attendance at the meetings as much as they could. He felt encouraged over the present status of the association, and hoped it would continue to improve and carry on the good work it has done.

The report of Treasurer W. B. Schmidt was read by the secretary, and gave a detailed account of the finances of the organization, which were shown to be in excellent shape.

The election of officers was then proceeded with, resulting as follows:

President, Emile Rost; first vice president, Henry McCall; second vice president, H. C. Minor; third vice president, L. M. Soniat; treasurer, W. B. Schmidt; secretary, Reginald Dykers

Executive Committee—Daniel Thompson, W. C. Stubbs, W. B. Schmidt, John N. Pharr, John Dymond.

The previous incumbents were re-elected in each case, and Mr. L. C. Keever, whose death left a vacancy on the executive committee, was replaced thereon by Mr. John Dymond, who was nominated to fill the vacancy by Mr. W. B. Schmidt.

The regular topic of the evening, "The Shaving of Stubble," was then taken up, and papers were presented by Mr. Dymond and Mr. James Mallon, both of which appear elsewhere in this issue. Mr. Mallon was unavoidably absent and his paper was read to the meeting by the secretary. Quite an exhaustive discussion of the subject of stubble shaving then ensued, which was participated in by Messrs. Stubbs, Dymond, Richard McCall, Mann, Zenor, O'Neill, Soniat and others.

At the conclusion of the discussion Col. G. G. Zenor brought up the question of having the association offer a reward for the invention of a successful cane harvester, this course having been pursued once before by the organization in the hope of stimulating inventive genius in this direction. Colonel Zenor thought that the amount previously offered—\$1000, was too small, and moved that a reward of \$10,000 be offered for the perfection of a successful device for the harvesting of sugar cane. This motion was amended to the effect that the association offer a reward of \$2000 for such a device, its merits to be passed upon by a committee composed of members of the association, and was adopted in this shape.

Mr. W. F. Pinckard, who was present, was then invited by the chair to explain to the meeting the merits and operation of the Kitson Hydro Carbon light, two of which had kindly been installed by him in the hall, and illumi-

nated it to a remarkable degree of brilliancy. Mr. Pinckard described in a very interesting way the method by which a light of such high power, 800 C. P., was generated from ordinary headlight oil, consuming only about one gallon in sixteen hours for each light. His remarks excited much attention, as it was thought to be admirably adapted, on account of its great power and excessive cheapness, for the lighting of sugar houses.

The selection of a topic for discussion at the next meeting was left to the president, and the association adjourned.

The Crop Situation:

A repetition of the frequent rains of the last few weeks again occurred this week throughout the sugar district, though not to so great an extent, the last few days being dry, with a more spring-like temperature than we have hitherto experienced. Field operations, while seriously retarded by the weather, can scarcely be called backward, taking the sugar district in its entirety, though in some localities a great deal remains to be done. A short period of good weather would accomplish much and permit those who are backward to finish their planting in good season.

Some Old Sugar Data.

In this issue of THE LOUISIANA PLANTER will be found some data collated from an old book by our esteemed Avoyelles correspondent. As Mr. D. B. Worden, the author of the book, was once United States Consul in Paris, what he says of us in 1819 would seem to be somewhat authoritative, and especially so as his statements were doubtless affected by his residence in Paris, where such a constant interest was maintained in Louisiana affairs.

In reading the article what strikes one now is the northerly limits given to the sugar industry. Shortly before the war there was a sugar plantation in full operation near Natchitoches, but for a generation nothing has been done in sugar cane there, the all-absorbing cotton crop having driven all others from the field. Four-cent cotton may again carry the sugar industry higher up the valley of the Red river and Natchitoches sugar again become a leading article in the market.

A novel statement, and perhaps a true

one, is that the higher temperatures of the waters of Red river especially favored the growth of sugar cane in that valley, and particularly in the months of May and June. There has always seemed to be some magic fertility in the alluvial lands of the Red river valley, and if cotton culture becomes unprofitable and cane culture be sustained we should prophesy continuous fields of waving cane from Avoyelles to Natchitoches. *Nous verrons.*

A Sugar Factory at Rayne.

Through the earnest efforts of the mayor of Rayne, Hon. E. Daboval, Jr., a corporation has been organized in that town for the erection of a sugar factory, and as a considerable quantity of sugar cane is now growing in the vicinity of Rayne, and as it is expected to plant still larger areas, the proposed sugar factory promises to be a good investment for the enterprising people of that town. We sincerely hope that their highest anticipations will be realized.

Profit in Sugar Cane.

The newspapers along the gulf coast, Florida to Texas, occasionally have articles concerning the immense profit in sugar cane, and some of these are quite misleading and possibly injurious, although the writers doubtless believe they are benefiting the sugar cane industry by their statements.

In the Bartow (Fla.) *Courier Informant* a statement is made that Mr. A. C. Potter made 570 gallons of fine syrup and two barrels of crude sugar from cane which grew on one and a half acres of pine land. It is now becoming a well established fact that canes that are grown on pine lands are of high saccharine content and will produce a large quantity of syrup and sugar. The error in the statement of this particular writer, however, lies in the fact that he estimates the value of 570 gallons of fine syrup at \$285, or at 50 cents per gallon. A few gallons of syrup might be retailed in the immediate locality at 50 cents per gallon, but if this syrup were thrown upon the open market anywhere it would probably not realize over 20 cents per gallon, or say \$114, which would still be a remarkably fine result and sufficiently great to bring considerable attention to the statement. It would seem unwise to exaggerate the value of

these articles by giving the extreme retail price when it is an admitted fact that the fertility of our Southern soils and the wonderful advantages of our climate in the way of sunshine and rainfall are such as to produce many of these tropical crops in great luxuriance. We can dispense with any such yield as \$300 from an acre and a half of pine land and still hold first place in agricultural results.

Sugar Beets in Illinois.

On the 25th ultimo there was held at Champaign, Ill., a convention of the farmers of Illinois, in the interest of the sugar beet industry as a sequence of a large Farmers' Institute meeting, which had been going on some days in the rooms of the university. From the Champaign Gazette, of February 25, we publish the proceedings of this convention in another column in this paper.

It is interesting to recall the fact that less than twenty years ago it was at this same university that experiments were made by some of its professors in the direction of manufacturing sugar from sorghum cane. Sufficient success in the manufacture was then realized to lead to continuing interest in this mysterious and refractory sugar plant until its final failure in Kansas. We have always had hopes that the sorghum plant could be subdued and made to yield its high percentage of sugar without the incidental difficulties and great cost that have attached to the process thus far. We believe it was Professors Weber and Scovill who had the sorghum experiments in hand, and in Louisiana we have always had a kindly feeling toward these co-workers of ours in the development of sugar plants. That the spirit of enterprise in sugar directions should again develop in the same university was certainly in the nature of things, and now that the sugar beet, a much more docile plant, is under consideration, we have every reason to believe that the farmers of Illinois can now easily secure the success in sugar manufacture in which they failed some twenty years ago.

We might here refer to the fact that it was at Chatsworth, Ill., that the first experiment in the West in beet sugar production was made about a generation ago. Its failure there at that time was attributed to a lack of water supply.

Looking back to the experiments from our more modern point of view, it would now seem that this doubtless was but one of the many difficulties incident to the introduction of such a complex industry into a new country where no one was familiar with it. Our Western pioneers in the beet sugar industry have now solved all of the main problems involved and successful beet manufacture is now no more difficult than the successful manufacture of cane sugar.

Egyptian Sugar.

Mr. Penfield, late Consul General in Cairo, in writing concerning Egypt, says that sugar cane can there be cultivated to a very large extent, probably far greater than anything thus far done in this staple, although this country has imported some \$4,000,000 worth of the sugar during each of the last two years.

The capacity of the valley of the Nile for the production of sugar cane and grain is simply enormous, and Mr. Penfield anticipates the entry of Egypt into the markets of the world as a serious competitor in the production of the world's food and clothing.

Trade Notes.

Steel Rails.—Elsewhere in this issue will be found an advertisement inserted by the McCall Bros. P. and M. Company, Limited, in which they say they are in the market for some steel rails, good second-hand or new, with fastenings and spikes. A chance is here presented for some of our friends who have rails to sell, but do not let people know it by advertising, to make a sale, the advertising having been done for them by Mr. McCall. We scarcely know whether to call this an object lesson or a rebuke, but we hope it will have a salutary effect.

American Tool and Machine Company.—M. H. Barker, the general manager of the American Tool and Machine Company, Boston, Mass., after a very pleasant visit here, left last Thursday to close several large contracts for centrifugal machines in the beet factories of California and New Mexico.

He came South in the interest of his company, who have, during the past ten years, made a special study of and expended much time and money in improving the Weston machine and bringing it up to its present state of perfection. They are constructed from selected materials, carefully tested, accurately finished and fully warranted throughout. This machine, he says, can be brought from a state of rest to full speed in a shorter space of time and with an expenditure of much less power than any other machine heretofore designed.

The "Weston" centrifugal is renowned for the excellence of its product, which is due to the short time required to bring the machine from a state of rest to full speed. This, together with the improved method of hanging, the self-balancing feature, the great stability of the basket, the self-oiling arrangement, the simplicity and durability of construction are features that demand the attention of prospective purchasers.

Messrs. Gibbens & Stream, the enterprising and progressive machinery dealers of this city, are to be congratulated upon being appointed by the American Tool and Machine Company as their general agents for this section, and they will cheerfully answer all interrogatories and furnish any information that may be required.

The Living Age.

The *Living Age* needs but to be read to be appreciated. Elevating, entertaining and instructive, it embraces every department of literature, including some of the best fiction of the day and poetry, and contains something for every variety of taste.

The contents of its February issues is suggestive of its wide scope and great value. It is indeed invaluable to one who has neither time nor opportunity for scanning all the magazines, but who is desirous of keeping abreast of the literary current.

Most of its articles are of great present interest, as well as of permanent value, yet they can be obtained in no other way except by subscribing direct for the periodicals in which they originally appear, and these are many and various, comprising not only those of Great Britain, but many of France, Germany, Spain and other continental sources.

The *Living Age* is published weekly at \$6 a year by the LIVING AGE Co., Boston. Send 15 cents for a sample copy and special offer to new subscribers.

Mr. R. W. Boland, of Birmingham, Ala., president of the Birmingham Machine and Foundry Company, which has captured contracts for a great many milling plants in Louisiana, was in the city during the past few days, and stopped at the Grunewald during his stay.

Mr. W. J. O'Neil was engineer during the past campaign at the fine Raceland factory of Mr. Leon Godchaux, in Lafourche parish. Mr. O'Neil stands high in his profession, as is evidenced by his selection to handle the mechanical department of such an immense house as Raceland.

Mr. Theophile Gentel had charge of the boiling department during the recent grinding season at the Golden Ranch place of Mr. John R. Gheens. Mr. Gentel has held an excellent record during his experience as a sugar boiler in this State.

Mr. Louis Dill was, as usual, engineer and sugar boiler combined on the Oakley plantation of the Oakley Plantation and Manufacturing Company, near Albemarle. Mr. Dill has been several years on Oakley, and a man has to be a good one to pass the critical inspection of Manager Malhot.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: There is no let-up in the programme of variegated weather, the sequence of cool, fair, mild, clear, cloudy and rainy days following in almost regular routine, and very few planters have been able to make any appreciable headway in cane planting during the past week. Belle Helene has ten days' work of this kind yet to do, and there are a few other places quite as backward with the campaign.

Planting was finished on Messrs. Bernard Lemann & Brother's Palo Alto plantation on the 24th of February, and Assistant Manager Esteve Hidalgo is authority for the statement that the seed was all sound and that the supply was more than sufficient to meet the requirements of the Palo Alto fields.

At Belle Terre, also the property of the Messrs. Lemann, Manager J. Elphege LeBlanc had two days' planting yet in prospect at the beginning of this week, and hopes to be fortunate enough to get through with it before another rain comes. He has plenty of seed and will have 250 acres of plant cane for the coming crop. As the weather has been against him so far as planting cane is concerned, he took advantage of the opportunity to put 100 acres of corn in the ground.

The bad state of the public roads in several places near Donaldsonville, particularly where new levees have been built, helps to discourage planters and managers from coming to town, hence details of plantation work are not plentiful or easy to obtain.

The work of tearing things to pieces has been inaugurated in Belle Helene factory, preparatory to the putting in of the new mill, double effects and other equipment that is to raise the productive capacity of the establishment very materially when the time for taking off the next sugar crop rolls around.

The serious illness of Chief Engineer J. C. Riley, of Belle Alliance, is a source of much regret to all who know him, and the hope is general that he may soon recover. He has become such a fixture at Belle Alliance factory that the place hardly seems the same without him.

A new board of directors for the Mississippi & Lafourche Railway was elected at a meeting of the stockholders held on Tuesday, the body consisting of Messrs. J. P. Kock and U. B. Dugas, of Assumption; E. B. LaPice, of St. James; R. W. Edwards and R. McCulloh, of Donaldsonville. These gentlemen were chosen by unanimous vote, and their selection augurs favorably for the prosperity of the company and the probable early extension of the road to Napoleonville, if not to the contemplated connection with the Southern Pacific line in the parish of Lafourche. The affairs of the company are now in better shape than at any time since its organization, and the fact that Messrs. J. P. Kock and S. Prejean have entered into an agreement to put the five miles of completed track in first-class order is an earnest of the *bona fide* intention to maintain this road as a permanent institution. At a

meeting of the new directory held immediately after the adjournment of the stockholders' session, Mr. J. P. Kock was elected president of the company, Mr. R. W. Edwards, vice president and general manager, and Mr. R. McCulloh, secretary and treasurer. If extended down Bayou Lafourche in accordance with the plans of the projectors, this little railroad will become an important factor in promoting the sugar industry in that wondrously fertile and prolific section of the cane growing portion of Louisiana, and if the planters of the Lafourche valley have a proper appreciation of their own manifest interest in the matter they will do all that lies in their power to foster and encourage the enterprise.

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has not been favorable for field work during the past week, for the bright, clear days hardly remain with us long enough to get the ground in shape when another rain comes along and stops everything but expense. The weather bureau's cold wave threat of last week was side-tracked somewhere above, for only in the most exposed places was there a trace of ice. No cane planting of any consequence was accomplished, and but very little corn was planted. The breaking out of old stubble lands preparatory to planting corn was resumed Wednesday morning, and at this writing it looks as though much would be accomplished. We have heard one complaint from the lower end of the parish to the effect that cane planted since rolling was not promising well, otherwise all seem satisfied.

The river on February 17 read twenty-six feet and nine and one-half inches on the gauge at Plaquemine, but since that date it has declined over nine feet and is still falling. The rainfall for the month of February was 4.98 inches, the maximum temperature 80 deg. and the minimum 31 deg. In this respect the month was far above the same month of the two preceding years.

That the condition and standing of the sugar planter has materially improved was evidenced this week by a contract for machinery, in which the payments were divided, one going over till December, 1899. Heretofore contractors have required the money at the end of the year for the deferred payment, and many planters were forced either to put up machinery of small capacity or get city endorsements, but not so now—it is all the time you want—interest from 6 to 8 per cent., and some extensive improvements may be looked for.

Cane planting at Evergreen was finished a month since, and everything was ready last Monday to start planting corn, when the rain intervened, and it was Wednesday before things got under way again. A tenant has taken hold of the land in the edge of the woods and will make a large clearing this year. Mr. Eli Laville, of Plaquemine, the popular manager of this fine place, has in view the two million line, and will not be satisfied until it is reached, even if it takes several seasons.

A few days' planting yet remains at the plantations of the J. Supple Sons Planting Company, Limited. Among the improvements contemplated for the Catherine sugar house is a new vacuum pan, as the one now in use was found to be inadequate last season.

The ramps now required for planters to successfully haul crops, etc., over their levees are quite extensive and expensive affairs, the costs running up into the hundreds. It is not every planter who feels able to build one, and the railroads are finding out that levees benefit them in more ways than one.

No meeting of the police jury was held last Monday for want of a quorum. A special meeting, however, has been called for next Tuesday to consider matters of great moment to a large part of the parish, and affecting the interests of numerous planters—the threatened stoppage of the drainage into Bayou Plaquemine.

The A. P. Allain tract on Bayou Maringoulin, containing 100 acres, will be sold by the sheriff on the 19th inst.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: The manner in which vegetation generally is putting forth, coupled with the warm, balmy days now prevailing, would seem to indicate that spring has set in in earnest, notwithstanding the fact that thin ice is said to have been seen in this vicinity last Saturday morning. The weather, however, is not satisfactory in that we are having too much rain, which interferes seriously with plantation work. The ground is thoroughly soaked. Before the water from one rain is absorbed, another shower falls, making it impossible to do satisfactory field work, particularly in the matter of planting cane. To illustrate the variability of the weather: Last Sunday was a beautifully clear day, with nothing to indicate a change in the near future. Monday morning was ushered in with a rain, which continued until 10 o'clock A. M., putting a quietus on field work for the day. Indeed, little or nothing was done Tuesday. This (Wednesday) morning the work of planting was resumed, but the weather is so fickle more rain may fall ere night. Apropos of wet weather, there is a growing conviction among our planters that rains are infinitely more injurious to plant and stubble than severe cold. A month ago, so far as could be seen, plant and stubble were in splendid condition. Today considerable defective seed is found, particularly in black land. As we have had little or no cold this winter, the conclusion is irresistible that whatever injury the cane has sustained has been wrought by rain and not by low temperature.

Still, the situation is by no means discouraging. On the contrary, one of the most successful planters in the parish remarked to the writer a few days ago that, taking things by and large, he considered existing conditions more favorable and promising than any ever experienced since 1890, which was a phenomenally good crop year, despite the disastrous overflows that affected portions of the sugar belt.

At all events, our planters are very hopeful and are straining every point to turn out big crops next fall. While material improvements were added to several of our local factories in 1897, it seems quite certain that the good work of improving will be continued this year. In addition to the probable betterments at Smithfield, mentioned last week, Cinclare will put in more machinery and otherwise enlarge its capacity, while Poplar Grove will construct a tramroad, on which the plantation as well as bought cane will be conveyed to the factory. Mr. David Devall has contracted for a new vacuum pan, and another planter, who has heretofore refused to purchase cane, is seriously thinking of making such additions to his plant as will enable him to handle cane other than that grown on his own plantation. From all of which it will be seen that, while there is no "boom" here, our planters are making every effort to reap the full benefits of the present sugar tariff. That their fondest expectations may be realized is the earnest hope of

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The meteorological conditions have been very vexing for the week just ended, and particularly to those who have not yet finished planting cane. We have had rain, and just about the time the planter was about to congratulate himself on being able to resume planting operations on the morrow, a rain would intervene and disappoint him. To-day, when all were in hopes of starting to plant, a slow rain set in, and all hopes of planting must be postponed for a day or two.

However, as a rule, planters are well up with their work, and a few weeks of dry weather will see all of the cane planted, and the greater part of the corn. Those who have not planted corn are rather disposed to rejoice, as the weather has not been propitious for that in the ground.

The stubble seems none the worse for the rains, and is putting out vigorously, promising to be a fine stand. The cane first planted is coming up, but not as rapidly as we would like to see it. One of our farmers told me that he was afraid he would have too much plant cane on the row, as he had thought that the cane was bad and piled it in; much to his joy he finds that it is coming up very thick. This complaint (as to the anticipated thickness of stand) does not seem to be very widespread.

We daily hear of improvements, new machinery, in contemplation or already contracted for. The Messrs. Lemann on Belle Terre are putting in a new set of mills. The Whitneys are doing this work. The disposition this year is to give the contracts out at an early date. All of the foundry men report an active market in their lines, and seem satisfied that they will have enough work to keep them agoing. The fall in the bayou is rather discouraging to the rice planters, but it is more than probable that another rise later will give them ample water for irrigating purposes. Of course they can irrigate by pumping, but this adds quite an

item to the expense account. Much attention is being paid to rice in Assumption, and out on Grand Bayou it bids fair to become an important industry. If we can thus diversify our industries, so that all will not depend on the success or failure of one crop, the people will be the better off.

There seems to be an air of confidence abroad, that has even reached the agricultural population, and the man with "the blues" has become, to use an expressive but slang phrase, a back number in the community.

The condition of the public roads shows the amount of bad weather that we have had, and wherever there have been new levees built the roads are in a deplorable state. The plan suggested by Mr. Bentley, of Ascension, is a good one, and means should be obtained for carrying it out practically. When levee boards destroy a good road, the contractor should be made to put the new road made necessary in good order. We do not mean at his individual expense, but at the cost of the boards. If legislation is necessary to accomplish this it should be obtained at the next session of the Legislature. It is much easier for the contractors to do it, and do it promptly, than to wait for the roads to get bad before working them.

The flower gardens with roses in luxuriant bloom suggest more the month of April than that of March. I was shown a sweet pepper plant the other day that although unprotected had survived the winter. It is not often that we have as mild a winter as we have experienced this year. Notwithstanding the old saying that "mild winters make full rivers," this does not seem to be true of the present one, for the waters are falling all the way up, and there is at present at least no danger of high water

MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Certainly this season has been one of the most perplexing and unsatisfactory remembered by the oldest inhabitants, as the rains in this section have fallen in a manner such that the lands have been too moist to do really good work since the commencement of the year. Quantities of cane have been planted, yet the land has never been in a desirable condition.

With favorable weather from now on, it will require some time and careful preparation to secure the desired tilth, without which neither cane or corn can develop rapidly when the weather becomes warm, and root ramification should be abundant. With some the weather has been more unpropitious than with others, and even at the present writing in some sections of the parish the land is entirely too wet to plant. Should the weather prove favorable some planters will end the operation of seeding the cane areas this week, and others again are not more than half through, and it will be after the middle of the month before planting will close.

Thus far the area planted in corn is very limited, but those who have finished planting cane will this week plant as much as circumstances will permit.

From the present indications the promise for a good stand of ratoons is above the average—even second year stubble in places now mark the rows nicely and the stumps examined where there are no sprouts above ground have sound eyes, some not yet pointed. Planters now have so much to do that the probabilities are the proper preparation of the corn land will be somewhat neglected to the very serious detriment of the crop later, and necessitating extra work just when the cane crop will demand attention. Thorough preparation prior to planting will save work later. One of the best crops of corn seen by the writer last year was made with one thorough working after the corn was from six to eight inches high. Contrary to the general practice the corn was well moulded with the single plow (no hoe work done), after which the middles were ploughed out with the double plow. The pease were planted and then nicely covered with a wheel disk cultivator. The land was somewhat new, and the season was favorable.

Latterly the John T. Moore Planting Company, Limited, has been formed, and the fine Waubun estate will be conducted under the above-named title. The company is composed of John T. Moore, John T. Moore, Jr., Charles V. Moore, and Mrs. Julia Moore, wife of John T. Moore; president, John T. Moore; vice president, John T. Moore, Jr.; secretary, Charles V. Moore.

Wednesday of last week was showery, with strong, cold wind at night; Thursday, cloudy, with cold winds; Friday, variable; Saturday, fresh and fair; Sunday, bright and cold; Monday, showers in the morning and cloudy in the afternoon; Tuesday, cloudy and cool, and Wednesday, favorable.

The official weather report from Schriever is as follows:

	Temperature.	Rainfall.	Sunshine
February 28.....	65.0	48.8	.....
March 1.....	70.0	41.8	.....
" 2.....	73.6	43.6	.....
" 3.....	64.8	40.3	.....
" 4.....	61.9	35.4	.....
" 5.....	61.4	34.0	.....
" 6.....	67.9	36.8	.....
	65.0	39.0	.....
		.86	.....

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: There has been but little change in the conditions of the weather since my last report. We still have an abundance of rain, which keeps all farm work at a standstill. The farmers are but little further advanced than they were ten days ago, and with the present prevailing rains the general crops will be at least three weeks late. The cane crop is in a better condition than any other and promises to be, with favorable weather in the summer, all that could be asked for.

Work is progressing nicely on all of the irrigating canals in the parish. The Hall canal, at Lake Arthur, is nearing completion, the Hall and Slutz canal, of lower Bayou Vermilion, is well advanced, and the extension of the Gueydan canal will be started in a few days and pushed to a finish.

Mr. O. M. Nilson, of the Perry plantation, has purchased the old triple effects in the Rose Hill refinery and is having them torn down and removed.

Mr. E. N. Cornay, editor of the *Sugar Belt Indicator* of Franklin, was in Abbeville this week.

Mr. Walter O'Neill, a prominent sugar planter of St. Mary, was looking at the Vermillion country the first of the week.

Mr. J. A. Thornton, of Baldwin, and wife, have been spending a few days in Vermillion. Mr. Thornton is one of those sugar planters that believes in Louisiana for Louisianians.

Mr. Gabriel Gardemal, who is identified with the sugar interest of St. Martin, paid Vermillion his first visit a few days ago. He was accompanied by Mr. Boyd Dugas, a sugar planter of the same parish.

Mr. D. J. Reid, ex-sheriff of Calcasieu, was over from Lake Charles recently.

Mr. C. C. Duson, of Crowley, and the real-estate hustler of Acadia parish, spent last Sunday night in Abbeville. Mr. Duson is too well known to call for any remarks. He informed THE PLANTER correspondent that the rice crop in his parish would be greatly increased this season and that by aid of the network of canals that is being put in, the yield would doubtless be large. Mr. Duson was accompanied over by Mr. F. C. Labit, the efficient postmaster of Crowley.

Mr. Solomon Wise, one of the largest real estate dealers in Vermillion, and who is also largely interested in sugar, is in New Orleans this week transacting business.

Mr. R. H. Washburn, a well-known banker of South Louisiana, is in Vermillion at present looking after his business interest. He will likely purchase some sugar property in the parish before leaving.

The stockholders of the Bank of Abbeville, voted an increase in the capital stock a few days ago from \$15,000 to \$40,000.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: At the present moment the planters are waiting and watching for a period of fair weather to come on and fit the land so it may be prepared for bringing cane planting to an end for this season.

So far, March has proved proverbially stormy, cold and disagreeable. On the 3d and 4th we had heavy frost and some ice, with the mercury barely down to the freezing point. The ice which formed was very thin. Fortunately, the air was dry, blowing cold from the north, therefore fruit and early vegetables were not seriously injured.

The weather growing warmer on the 5th and 6th, brought about a heavy rain on the morning of the 7th inst., with warmer and clearing weather by noon, leaving the ground very wet, causing further delays to planting.

THE PLANTER's correspondent boarded the south-bound train over the Alexandria branch of the Southern Pacific Railroad on the morning of the 5th inst. for Barbreck and St. Peters. Arriving at Barbreck I was not long in

finding my way to St. Peters, where it was my good fortune to find in the office Mr. Wilkerson just returned from the field, and Mr. Aug. Lesseps, the worthy president of the Augusta Sugar Manufacturing Company, Limited, and at the time in charge of the newly acquired St. Peters property. After a pleasant breathing spell, Mr. Lesseps took charge of THE PLANTER's scribe, conversing on various topics, and calling in the afternoon on Mr. Henry Shaw, the manager of Barbreck plantation.

Mr. Lesseps placed at my disposal the following interesting data and facts relative to the new company now possessing the St. Peters plantation.

The new organization is composed of some of the foremost cane planters and sugar manufacturers of St. Mary. In reality, it may be said to be a truly representative St. Mary planting and sugar manufacturing company, limited, with Mr. Aug. Lesseps as president, Mr. A. M. Underwood vice president, Mr. Phillip H. Metz as secretary, Mr. J. M. Burgulieres treasurer. The Augusta Sugar Manufacturing Company, Limited, in possession of the St. Peters plantation, with the worthy president, Mr. Lesseps, at the helm, a new era will dawn not only on St. Peters plantation, but to the whole surrounding country alike.

Mr. Lesseps informed me that "the prospects are that there will be a mill and complete house finished this season on the place for the manufacture of syrup." But of this notes will be made at some opportune date later in the season; here I beg to state that the Augusta Sugar Company, Limited, is named in honor of Mrs. Augusta Lesseps, who, with her husband, Mr. Aug. Lesseps, the first president of the newly organized company, will ere long move to and make their home on St. Peters. A greeting awaits their coming.

Progress is to be the word with this new enterprise.

Speaking of the crops being planted on St. Peters this season, Mr. Lesseps informed me that there would be about 175 acres of plant cane and 200 acres of first year's stubble. In regard to the stubble on the place it was all A1. A large acreage will be planted to corn and pease, and some five acres of sorghum for forage. Special attention will be given to drainage and bridges, the improvement of the soil, buildings, etc., and of which, as the season grows, notes will be given the readers of THE PLANTER.

Mr. Henry Shaw, Barbreck's popular manager, kindly handed THE PLANTER's scribe some planting notes. They will have in plant cane 225 acres; first year's stubble, 230 acres; corn and pease, 300 acres; oats, 50 acres; sorghum, 5 acres. The remainder of the place, consisting of several hundred acres, is rented to tenants, and will be planted to corn, cotton and pease. The seed cane is good and stubble promising.

Anchorage plantation, under the able management of Mr. L. Campbell, has for this year seventy acres to plant cane and sixty acres of first year's stubble. They will plant largely to corn and pease.

Mr. Phillips, Barbreck postoffice, has fifty-

five acres to plant cane and thirty-two to first year's stubble. He will plant a large corn and pea crop.

Mr. W. O'Quinn, of Barbreck, has put in fifty acres of plant cane and has eight in first year's stubble, and will plant corn, pease and cotton.

Mr. O. S. Prosser, Barbreck, starts out with five acres to plant cane for seed for growing into cane.

Mr. Jas. Baldrige, of Barbreck, and a number of others, all progressive farmers, are planting some cane for obtaining seed to plant a cane crop next year. ERIN.

St. James—Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: A return of apparently fair weather has greatly relieved the planters from the distressing feeling which was existing last week at this time, owing to the very disagreeable weather prevailing at the time. The sun has at last succeeded in piercing through the dense clouds, and since last Thursday we have been mercifully protected from this continual disagreeable rainfall which did not desist more than two or three days without reappearing. Although we have been having a continual east wind, still it has not brought us any rain.

The tillage of the soil has thus been rendered more easy, as it has had time to become considerably dry.

The busy planters are now engaged in terminating their planting season, some have already finished, whilst others have work for a number of days yet, owing to an increase of acreage on some places, and having started late on others.

Last Saturday night fire made its appearance on the Uncle Sam plantation, destroying the entire stable before it was discovered. The flames had made their way too considerably to be extinguished, and before assistance could be had, five beautiful horses had perished—among which were two family horses and an overseer's pride, the loss of which was greatly regretted.

Several applications for the establishment of tramways and switches are now being filed, and we understand that many of our sugar plantations will shortly boast of this additional improvement.

Our popular doctor, Louis Gaudin, of Convent, La., is now having a palatial residence built for himself on his property adjoining the college. From what we see and hear we understand that he will have all the latest improvements which can possibly conduce to making a home comfortable, and that nothing will be left undone.

St. James has again lost one of its beloved citizens by the death of Mr. August Serrel, which event occurred last Wednesday at his residence near Gramercy. He had the reputation of being a first-class planter, and it was from him that the well-known Gramercy Company purchased the part of Golden Grove plantation on which lies the great Gramercy factory.

Smoke is seen coming from the Rapidan factory smoke-stacks. We have thus concluded that sugars are being dried at that place.

CONVENT.

Shaving Cane Stubbles.

[A paper by MR. JOHN DRYMOND, read before the Louisiana Sugar Planters' Association, March 10, 1898.]

We are told by *ante-bellum* planters that they used to cut off or chop off with the sharp hoe the long stubbles left in the cane fields when the spring work begun. No particular reason was given for this, unless it was that the work was smoothed up and made more regular and easier for the subsequent work of cultivation. The idea seems to have been current that this was a good thing to do, but no particular reasons were given for the work.

As the process seems to have been recognized as a proper one, various mechanical devices other than the hoe came to be used, and first among these was a narrow sled, straddling the stubble row and moving in the bar furrows, across which was placed diagonally a thin knife, made of saw-blade steel. The oblique cut of this knife has generally been found effective, and the use of this knife has had many adherents, and it probably continues in considerable use to this day.

As this cut was a direct pull on the cane stubbles and sometimes pulled them out of the ground, and instead of making a clean cut sometimes split the canes, an attempt was made to secure a scissor-like cut, and this was first attempted with two knives, set diagonally to the sled frame and converging to the centre line. This did not become the success its inventor expected because of clogging at the point of conveyance. This led to the adoption of two large heavy disks, made especially strong to prevent breakage, because of the frequent contact with tree stumps, roots, etc. This machine became the standard and was in general use for a decade or two.

There came then upon the scene one James Mallon, a gentleman whose name has become a household word among the sugar planters of Louisiana, whose disregard of the traditions of the past, whose knowledge of the needs of the present and whose wonderful inventive faculty and mechanical talent gave him a broader, more comprehensive and completer appreciation of those needs and greater power to provide for their relief than is granted to most men. Mr. Mallon cut the Gordian knot by using thin disks instead of the old heavy ones by using a light-wheeled frame instead of the old heavy sled, and by getting out a machine drawn and worked more easily with two mules than the old one was with four. This remains the stubble shaver of to-day, a most effective machine for the work to be done.

There remains now the consideration of the expediency of the work that these machines will perform. There can be but little doubt that stubble shaving is *per se* an injurious process. To cut off the cane stump two or three inches below the ground line, at the same time removing the top earth and leaving the ends of the newly cut canes exposed to the sun and rain, is very rough treatment of a plant that we desire to force into vigorous growth. In fact it is now often found that under some conditions cane stubbles are very severely injured by shaving. The late James Cofield, for many years one of our most prominent and most successful sugar planters, in answer to my

inquiry as to the expediency of shaving the stubbles that particular season, the winter having been favorable and the stubble crop showing up considerably in advance of the average season, responded that he would not shave stubble that season. He did not argue the case, but seemed to know instinctively that when the plant was already in an advanced state of germination the amputation of its upper half would result injuriously.

Again, it has been several times found in my own experience that the shaving of second stubbles damaged the crop severely. It seemed that the vitality of the stubbles diminishes with each crop and that the shock sustained by second stubble in shaving it frequently, or at least sometimes, kills it.

We may say it makes our hair grow to cut it, but we can hardly say it makes cane stubbles grow to cut off the top half. There must be some other reason for the good results that frequently, not always, follow stubble shaving. These reasons seem to me to be about these: As we all know our Louisiana cane fields present a series of high ridges and deep water furrows. The difference of levels between the top of the cane rows and the bottom of the water furrows frequently exceeds twelve inches. One heavy rain requires this arrangement to quickly dispose of the occasional excess of rain. The low temperatures of January, February and early March prevent the rapid germination of the eyes on the stubbles, and in order to promote it we remove as much of the cane ridge as we can. We throw the earth away from the cane rows down into the middles or water furrows and then shave off the top earth and part of the cane stumps. The result of this rough treatment of the cane stump is that the portion of it that is left is presumed the soundest part; it is relieved of its large covering of cold earth, and can more readily germinate, because of the more ready access to it of the temperature essential to germination. Although the treatment is rough, sometimes destructive, the general result is satisfactory and stubble shaving has become an essential process in our industry.

Let us consider some of the reasons for this. It was noticed long ago that canes that were never harvested produced better ratoons than canes harvested in the ordinary way. It has always been noticed that canes harvested early in the season did not ratoon as well as canes harvested later. The reason for this seems obvious. When canes are harvested early the conditions of soil and season are such as to continue the growth and the cane stumps begin at once to send out ratoons. These, if they grow to any size, are killed back to the parent stalk by any subsequent freeze and the power to germinate at the point destroyed. Other remoter, weaker eyes may germinate subsequently, but such never produce good results. From all this comes our desire to delay our cane harvests until the active growing season is past. It is essential to the preservation of the stubbles. We then want the stubbles to remain dormant until the conditions of soil and season again bring about active growth. We promote or expedite the coming of this growth by removal of the sur-

plus earth, permitting the plant's root system to be affected by the heat, air and moisture, thus developing new growth. In the autumn we do all we can to secure dormancy; in the spring we do all we can to secure new growth.

Stubble shaving is the easiest, cheapest and the most effective plan of doing this work in the spring. At one movement the rough irregular cane stumps are cut off to a uniform level, all the top earth is removed to the same level and thus by one machine is done more than ten hoemen could do in the old way.

Some planters will argue that hand hoeing or stubble digging, as we call it, is the best, and I am willing to admit their contention, but if economy be an element in our industrial problem, then stubble shaving is essential. In successful ratoon culture the subsequent digging by machine or by hand hoes is a separate problem and not before us to-night, although closely related to stubble shaving, which is a preliminary process that cheapens the whole work of starting the ratoon crop into its season of growth. For this it is essential.

The Shaving of Stubble.

[A paper by MR. JAMES MALLON, read before the Louisiana Sugar Planters' Association, March 10, 1898.]

MR. PRESIDENT AND GENTLEMEN—Accepting your kind invitation to prepare a paper on stubble shaving I will try in as few words as possible to give my experience. I have never experimented on deep shaving. I never believed in it, nor do I yet believe in it. I experimented several seasons in succession and found that the stubble which was shaved always gave the most regular stand, and was the only stubble that could be cultivated without hoeing. First I would bar off as regular as possible, leaving the ridge about 14 to 18 inches wide, using one of Mallon's latest improved shavers, kept sharp by one of Mallon's latest improved grinders. I would keep the blades sharp by grinding twice a day. With good, sharp blades this shaver will not split the stubble. Shave deep enough to take all the grass off.

When the ground dries a little run Mallon's latest improved stubble digger; run twice on a row—once each way—and before the grass gets a good start, run the digger again, and continue to run it till the cane is large enough to stand a light dirting with the riding disk cultivator, with small sectional disk next the crop. In this way stubble can be cultivated well without hoeing. I believe there is a great deal of shaving done too deep, and I think, perhaps, the reason a great deal of it is done is because it is so hard to get a machine to shave light and do good work. Shavers will not split stubble when run deep near as bad as when run light, but with my latest improved shaver, when the blades are used only half a day and then ground with my new improved grinder, a good edge can be kept, and you can shave closer to top of ground, split less cane, do it with less draught and with more ease to the operator than any other shaver made, and always increase the tonnage and cheapen cultivation.

JAMES MALLON.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, February 19, 1898.

Editor Louisiana Planter: Whilst last week the weather was in a certain degree in harmony with the season, there has just been a change for the reverse and the winter reported a week ago has turned again into spring. Especially the first few days of the week were warm, sunny and dry, and the little snow fallen previously was soon thawed away by the rays of the bright sun. This caused in many sections the agriculturists to think of commencing their preparatory work, but the carrying out of such a scheme was rudely prevented by another change of the weather, which, although being not exactly a return to the winter, made all field operations for the time being impracticable, because of the downpour of rain, accompanied by raging storms. In most parts of beet-growing Europe the weather was not much different from that prevailing in this country. But whilst it has been a shade better in France it has been a trifle less satisfactory in Austria. In Russia, after a mild January, the weather has grown rather cold and inclement. As to the extension of beet sowings for next campaign, of course nothing definite can be so far reported, but there are some indications which may be summed up in the following way: In Germany there is some discrepancy in the ideas of farmers and fabricants as to the beet prices, the former being not disposed to accept those offered by the latter; in Austria there is some hesitation on both sides because of the uncertainty of future legislative developments; in France the prospects are for the moment that about the same surface as last year will be sown, notwithstanding the higher prices offered for the beets as compared with last year; in Belgium a reduction is, as reported already in my last letter, announced to be contemplated by the fabricants; in Holland, however, and in Russia, an increase of beet culture is almost certain, more especially in the latter country where the last campaign has furnished excellent results.

As to the bounty question it seems now that I shall not have any further occasion to bother your esteemed readers with it. Advices from Brussels are received to the effect that on account of the attitude of France, who is not willing to renounce on her indirect bounties, the conference is adjourned *sine die*. This is by many persons considered as the death knell of the whole bounty movement. This conference to all appearances will not meet at all, and if against expectation it would take place the negotiations will hardly lead to any palpable result. The French, quite apart from the economical side of the question, will not join in such a movement because of the antagonism existing between them and Germany, who they believe will derive some advantage from it, whilst on the contrary the German sugar manufacturers, at least a great part of them, entertain much doubt as to the expediency of the abolition of bounties, even in the case that all countries as a unit would vote for it.

The question as to whether saccharin is injurious to human health has been much discussed, but the public opinion has inclined of late more to the belief that no particular harm was done to the bodies of saccharin eaters. Recent scientific researches, however, do not seem to confirm this doctrine. By a prominent physician it has been found that saccharin is poisonous, and there have been observed cases where, after a long continued use of the stuff, which, for instance, is prescribed for those suffering of diabetes (sugar disease), decidedly alarming effects were produced, such as vomiting, want of appetite, diarrhoea, etc., and which could not be accounted for but by the application of saccharin instead of sugar. The worst of it is, that generally nobody knows when he is consuming saccharin, as it is mostly employed for sweetening liquors and sweetmeats, where its presence is detected only by chemical analysis, whilst the public at large is quite unsuspecting as to the sweets offered to them by the grocers, bakers, liquor dealers, etc. It may be mentioned here that there are five saccharin factories in Germany and one each in France and in Switzerland; in England there is a saccharin corporation, limited.

It is interesting to follow the statistics of the German Imperial Insurance for lives and accidents of working men, of which, with regard to the sugar industry, I already, in former years, furnished you some figures. There were in 1896 100,655 persons insured, whose salaries amounted to 44,251,469 marks. The number of accidents for which damages were granted was 509, and from former years 2777 cases were carried over, but the number of persons who actually applied for damages in 1896 was 2776. The amount paid out to the persons having a legal and acknowledged claim for damages was 535,720 marks. The entire receipts of the insurance institution, which is sustained exclusively by the contributions of the fabricants were 816,135 marks, while the expenditure, including the cost of administration reached, 737,283 marks. Of the accidents named above fifty-three caused the death of the injured persons. But the institution does not care only for indemnifying the working men who fall a victim to their vocation, but it also entertains a supervision of the factories with the object of so controlling their plant and machinery that every precaution is taken to prevent accidents, and there are also certain regulations for the work in the factory to be observed by everybody having business in the establishment, and the leading persons are held accountable in case the regulations have not been enforced with due energy and circumspection.

The markets this week opened in a weakening mood, as speculation began to realize on March contracts. This distemper, however, was soon overcome, principally in consequence of the favorable German statistics for January, which distinguished itself favorably from January 1897 by larger export and by a decrease of stocks, which at that time of last year were still on the increase. Prices, which at first receded a trifle, recovered soon again, and closed about $7\frac{1}{2}$ pfennigs higher than last

week, actual 88 per cent. sugars being quoted at last at Magdeburg at 10.10 to 10.37 marks, while delivery February is worth 9.25 marks f. o. b. Refined, at first quiet, became at the close more active, and some grades advanced $12\frac{1}{2}$ pfennigs. ROBERT HENNIG.

Barbados.

We are now creeping toward the general sugar crop season. A few more plantations have begun operations, but the season can not yet be said to be in full swing. The cane crops are in no way behind expectations, and we must continue to harp on the familiar old theme that should we be blessed with favorable prices we will be enabled to ride over the stream this time in sweet safety. The weather during the fortnight has been dry and favorable to reaping. Our last mail edition had barely been through the press when a heavy downpour changed the general appearance and blighted the hopes of many a young pleasure-seeker, but this did not extend further than that night. Since then we have had it dry, temperate, and, as we have already said, favorable to reaping till this morning, when a close shower fell and heavy clouds threatened. The nights have been breezy and some of the early mornings too cold for a thorough enjoyment. Our sugar crop so far for the season of 1898 is on the march; Friday last saw prices offered at \$1.60, and the schooner Algeria sailed the day before for St. John's, Newfoundland with 198 puncheons, 30 hogheads and 56 barrels of molasses. This is said to be the first shipment of molasses for the year.—*Globe*, February 17.

Sugar in Hawaii.

British West India sugar planters will regard their competitors in Hawaii with envy if the forecast of the report of the Hutchinson Plantation Company, published by the *Wall Street Journal*, proves correct. This company is one of the oldest sugar-planting companies in the Hawaiian Islands, and will (says that journal) close the fiscal year ending in May next with a surplus of not less than \$150,000 in cash, all expenses incidental to the coming crop being paid. The crop for 1898, which is absolutely assured, will amount to 10,000 tons of sugar. At \$70 a ton, this would net the company \$700,000, and, deducting the annual expenses of \$250,000, which is about 10 per cent. in excess of past years, it would leave a net profit of \$450,000. This, on 50,000 shares, would show a result of \$9 a share. The company, increases, it is stated, its cultivated area by from 200 to 300 acres annually.—*European Mail*.

Mr. Ben. H. Pring, of Oneida plantation, on the upper coast, was a guest of the St. Charles on Wednesday.

Mr. J. P. Snelling, of Whitecastle, La., near which he has planting interests, was in the city on a visit a few days ago. Mr. Snelling registered at the Hotel Grunewald.

Mr. Walter I. Barton, a prominent planter of Ascension parish, was a guest of the St. Charles during the past week.

BEET SUGAR.

Eddy, New Mexico.

The mother beets preserved by the sugar company for seed purposes have been planted, amounting in all to about seven acres. The success attendant upon the growing of seed last season has prompted the factory to continue the experiment, and it will undoubtedly follow that the plantings will be increased from year to year.

H. A. Vallez, superintendent of the sugar factory during the past year, left on Monday's train, accompanied by his wife, for Lehi, Utah, where he has accepted the position of superintendent of the factory at that place. This arrangement was made some time ago, but we have refrained from making mention of it, believing that it might be possible Mr. Vallez would remain here. His working of the factory here proved him a most competent man. Before coming here he held the position of chemist in the Lehi factory, is regarded as a man well versed in all sugar details, and his friends there are very glad to welcome him back. We have no knowledge as to who will succeed him here.—*Pecos Valley Argus*, March 4.

A Bounty to Beet Sugar Manufacturers.

The State Commissioner of Agriculture, Mr. Wieting, and his deputy, Mr. Flanders, have returned from Albany from an investigation of the sugar beet factory at Rome. They bring back a sworn statement that 643,800 pounds of granulated sugar was manufactured there from beets grown in this State. The commissioner paid to the manufacturer \$6438, the amount of the bounty at the rate of one cent per pound, authorized by the beet sugar act of last winter, which appropriated \$25,000.—*N. Y. Journal*.

Cache Valley Beets.

We learn from President Orson Smith that the farmers of Cache county will be able to obtain \$3.50 per ton for sugar beets, loaded on the cars at Cache valley points and destined for consumption at the sugar factory to be established at Ogden this summer. We have heretofore published the gratifying results in the experimental culture of the sugar beet at various points in the valley, and now the opportunity of making a practical test will be afforded. We sincerely hope that a sufficient number of farmers in the various parts of the valley will take advantage of this opportunity to demonstrate what can be done in this direction. A successful showing will mean the establishment of a sugar factory in Cache valley in the near future.—*Logan (Utah) Journal*.

New York.

The Binghamton Sugar Beet Company, of Conklin, Broome Co., N. Y., was incorporated last week, with capital of \$440,000. The directors are: Arthur S. Bartlett, Thomas B. Crary, James Dairdge, C. F. Hotchkiss, C. C. Jackson, F. W. Jenkins, P. J. McTighe, W. C. Phelps, J. E. Rogers, W. H. Sherwood, and W. S. Week, of Binghamton.

The Rome Beet Sugar Company has decided to offer seven prizes to beet growers, to show how cheaply beets can be raised on New York soil, when done in the best possible manner. The prizes are: \$100 to grower of largest number of tons of beets per acre; \$50 to raiser of next largest number; \$25 to raiser of third largest; \$10 to fourth, and \$5 to fifth. The grower who raises beets at the least cost per ton to himself will receive a prize of \$50, and the next lowest \$25.—*Country Gentleman*.

Sugar Beets in Missouri.

During the past year (1897) the Missouri Experiment Station, in co-operation with the United States Department of Agriculture, has made an extensive test of sugar beets in all sections of the State. Seed of one of the leading varieties, Kleinwanzleben, was sent to a number of the leading farmers and gardeners in each county last spring, with full directions for growing, harvesting and sampling the same. The season has been very unfavorable on account of the excessive rainfall in the spring, which retarded the planting and early growth of the beets, followed by an unusual drought accompanied by excessive temperature which continued throughout the growing season. This had the effect of greatly reducing the yield and presumably affected adversely the richness and purity of the beets.

More than 300 samples were sent to the station for analysis from 90 to 114 counties in the State. The average per cent. of sugar in the juice of all the samples analyzed is 11.14. The richest sample was from St. Clair county, and showed 21.02 per cent. of sugar and a purity coefficient of 92.02. The poorest samples showed 3.08 per cent. of sugar and 34.8 purity. One-half of the samples analyzed, not including sixty-seven samples grown by the Block Land and Farming Company, of Pike county, showed 12 per cent. of sugar or better. The Pike county samples are not included in the average because the beets were planted July 6, too late to allow them to mature. Seventy-three counties, or 80 per cent. of all the counties represented, furnish one or more samples showing 12 per cent. of sugar. The counties showing the best result, the size of beets, per cent. of sugar and degree of purity considered, are: Adair, Barton, Benton, Caldwell, Cass, Clark, Gentry, Greene, Grundy, Henry, Jackson, Johnson, Knox, Laclede, Lewis, Linn, McDonald, Madison, Montgomery, Pettis, Platte, Randolph, Ray, Saline, Schuyler, Scotland, St. Francis, St. Louis, Sullivan, Taney, Texas, Vernon and Wright.

A beet to be profitable for the manufacture of sugar should contain at least 12 per cent. of sugar. The yield of topped beets should average 10 tons per acre to be profitable to the grower. The price of topped beets delivered at the factory is between \$3 and \$5 per ton, according to their richness. The cost per acre of growing, harvesting and delivering the beets to the factory is between \$30 and \$50. The Norfolk Sugar Beet Company of Nebraska asserts, after six years' experience, that seven tons of topped beets per acre will bear all expenses of growing them, and all over this yield is profit. The cost of a small beet

sugar factory, properly equipped, will range from \$200,000 to \$250,000, and will require between 3000 and 4000 acres of beets each year to supply it.

The Missouri Station has been experimenting with this crop during the past seven years, and taking into consideration all the results in Missouri, together with those obtained by the United States Department of Agriculture, it is believed to be unwise to invest money in a factory in this State until further tests are made.—*Orange Judd Farmer*.

Profitable Sugar Beets.

The end of the campaign for 1897 at the Norfolk (Neb.) beet sugar plant gives an average yield in sugar of nearly 190 pounds per ton of beets. If an average price of \$4 per ton is paid the farmer, there can be but little profit left for the sugar company. Sugar beets, however, will make a much better showing than this if properly grown. The mistake most farmers make is in growing a heavy crop at the expense of the sugar content. It is doubtful if more than fifteen tons per acre can be grown with safety, unless the quickly available chemical manures are used very liberally, and what is of fully equal importance, used very intelligently.

By working plenty of barnyard manure into the soil a heavy crop may be made, but the sugar content will be low. The mineral fertilizers of barnyard manure are slow acting as compared with its ammonia. To get an idea of how much importance the mineral fertilizers are to sugar beets, it is only necessary to compare the chemical analysis with the same figures for a staple crop such as corn. In the corn plant for every 100 pounds of nitrogen taken up by the crop there must also be taken up 215 pounds of phosphoric acid and 255 pounds of potash; for the sugar beet crop each pound of nitrogen must have to go with them, 215 pounds of phosphoric acid and 445 pounds of potash. It is plainly evident, therefore, that a manure which gives very good results on corn will not answer for sugar beets. Furthermore, the corn plant has a wide reaching root system, and can forage for plant food, while the sugar beet root system is confined to narrow limits, and the soil must be fed far more liberally.

It is now generally understood that sugar beets should follow a cultivated crop—that is, the ground should have been worked thoroughly the previous year, not only in order that the weeds may be well subdued, but also that the soil may be in a fine open condition. Corn is the ideal crop to precede sugar beets, as it answers all the requirements. A clover sod will answer, but it must be ploughed late in the fall, and thoroughly cross-ploughed in the spring. A short rotation should be used, as a sugar beet farmer is something of a specialist, and should keep his soil in his specialty as much as possible. A fair rotation would be corn with crimson clover (or other suitable legume) broadcasted in August and the clover crop ploughed under as late in the fall as possible. Cross-plough the next year as early as possible, and plant beets, to be fol-

lowed the next year by corn—in fact, a two-year rotation.

By this rotation all the farmyard manure should be used on the corn, with an application of about 400 pounds of kainit (or 100 pounds of muriate of potash) in July for the legume. On the sugar beets only chemical fertilizers should be used, and the applications per acre should not be less than 1000 pounds of a fertilizer of the following analysis: Ammonia, 6 per cent.; potash, 8 per cent.; phosphoric acid, available, 6 per cent. The potash used should be in the form of sulphate, unless it is applied the previous fall, when kainit or muriate may be used with perfect safety.

If the soil is in very good condition, even heavier applications may be used profitably, but the soil must be in a very fertile condition. It is a well-tried maxim that the more fertilizer you use the more you can profitably use. A soil which produces but ten tons of fair sugar beets per acre, may in a few years be made to produce fifteen tons, and of a much higher quality. It is all a matter of systematic fertilization.—*S. Peacock, in Country Gentleman.*

The Beet Sugar Problem.

The esteemed *St. Louis Grocer and General Merchant* says:

"With the annexation of Hawaii and the rapid development of the beet industry, the United States will soon have sugar to burn—or rather, to export. Our friends of the *Merchants' Review*, New York, from the tone of their editorials, do not seem to appreciate the prospect. At least let us produce enough sugar for home consumption; the law of supply and demand, so far as any export trade is concerned, will regulate the rest."

The situation is this: Sugar is produced so plentifully that it is virtually a drug in unprotected markets—in England many grocers sell it at 2½c. a pound—and it certainly can be produced more cheaply in the West Indies than here.

Then the problem before our statesmen, a problem almost insoluble, is how to raise enough revenue without excessive and onerous taxation through the Internal Revenue Department. Sugar is an ideal article for yielding revenue; indeed, it would be mighty hard to meet the heavy pension disbursements without the sugar tax.

Now here is the matter in a nutshell: Sugar can be bought abroad more cheaply than we can produce it, and if we do produce it—at excessive cost—we shall be puzzled to find a substitute for the sugar tax in meeting the wants of the treasury. Does our contemporary see why we "do not seem to appreciate the prospect?" We don't believe in raising here that which we can buy more cheaply abroad, and we think the wants of the treasury need to be studied, especially as there is a prospect of the beet sugar advocates coming to Washington in the future with an urgent demand for a bounty. Once let the domestic beet sugar industry get a fair start and there will be an all-powerful argument—with some people—for the government to come forward and save it with a bounty, or "any old thing" that means money.

Editor Jackson is a level-headed fellow and doubtless understands the unsatisfactory condition of the government bolstered beet sugar industry of Europe. Surely he would not reproduce that situation here if he had the power?—*Merchants' Review.*

Should the United States Produce Its Sugar?

"Efforts are being made in the United States," says Secretary of Agriculture Wilson in the *March Forum*, "to extend the growth of sugar-producing plants by ascertaining—through scientifically conducted research at State experiment stations, and by private enterprise, under the direction of the Federal and State Governments—where such plants will flourish best, to the end that we may as a nation become independent of other countries in this regard * * * and distribute among our own people the immense sum of money that is now sent abroad to pay for sweetening materials. * * * This subject should be discussed from the standpoint of the farmer rather than from that of the political economist. The farmers of our country produce from the soil grains, cotton, tobacco, vegetables, fruits, horses, cattle, hogs, sheep, various animal products and the like; and if we can add to our farm systems any crop that yields an article of common use, is not exhaustive of plant food, and whose by-product is valuable in making meat and dairy products, it will find favor with producers. There are very few crops, or manufacturers of them, of which this can be said so emphatically as it can be said of sugar beets. The grains are well-known soil robbers. They carry from the soil nitrogen, potash, phosphoric acid, lime, magnesia and other elements of plant food. Tobacco is peculiarly severe in this regard, because none of its by-products are fit for animal food, and what is sold from the farm carries away so much mineral plant food that most soils are soon exhausted if not replenished by commercial fertilizers, the purchase of which is out of the question in many parts of the United States. Meats take away comparatively little plant food from the soil, compared with their money value.

"The cotton plant is not exhaustive if the stalks are ploughed under and the seed is returned to the soil, either directly or through the instrumentality of domestic animals. The oil of the cotton seed may be sold without taking any plant food from the farm, as it comes from the atmosphere through the leaves of the plant. Butter is also harmless in this respect, and does not impoverish the land on which the cow grazes. Sugar is as harmless as oil and butter; it comes from the carbonic dioxide of the atmosphere. If the sugar beet is hauled to the factory and the pulp taken back to the farm no plant food is lost to the soil.

"The writer grew beets by the acre for stock feed from 1891 to 1896 at the Iowa Agricultural College, and found the enterprise profitable for that purpose alone. All domestic animals are benefited by daily rations of roots in winter when they have no access to pasture—the young animal, the breeding animal and the

fattening animal alike find them grateful. After the sugar is extracted the pulp contains all the plant food furnished by the soil and is substantially as valuable as fodder for domestic animals as the beet is before the sugar is extracted. The fodders of our rations are nearly all too carbonaceous and require mixtures of nitrogenous by-products to make them suitable for animal growth or milk production. Here, then, we have a plant that, aside from the sugar it contains, makes a valuable food for our domestic animals and is capable of successful cultivation in many of our States. It fits into our farm system conveniently, because its planting season is earlier and its harvest time later than that of corn, and not only serves a double purpose as an animal nutrient, but holds out the liveliest hopes that its adoption will keep at home \$100,000,000 through the value of its sugar content alone."—*Bradstreet's.*

Effects of a Sugar Factory.

Before the sugar factory was built, Lehi, Utah, was a very ordinary settlement; its picturesque surroundings and fertile soil did not make a market for the farmers' products, and up to the date of the establishment of the sugar factory there was little more than a bare living for the farmer; he had no bank account, his taxes were not always paid promptly, he owned no comfortable carriage or pleasure vehicle, his lines were hard and unpromising [as is too true in the case of all outlying farming villages, no matter where they are located]. But the sugar factory came. A cash market, at a fixed price, was given him for his beets. Seven years have passed. A bank with 700 depositors exists, largely farmers, and when the writer visited this most interesting community the balance to the credit of the depositors exceeded \$70,000, although it was at the end of the season and just before marketing the beets, hence the time of all times when cash on hand should be the least amount. The banker said: "We have no delinquent taxes; the farmers are not in debt as a class; they all or nearly all own comfortable carriages; their homes, though simple, are comfortable; pianos and other luxuries are not uncommon. Farm values are high now, whereas in the days before the factory came, they were very low. The quality of other crops with which they alternate their beets is much improved, and the quantity is much greater." An air of thrift pervaded the entire community. New homes were being built and public improvements made, and Lehi, Utah, stands to-day as a living illustration of the results of a good market for farm product to first hands with no middle hands between.

That the capitalists who invested in Lehi are at least satisfied that they made no mistake in investing \$350,000 to \$500,000 is shown by the fact that they are organizing other sugar factories in the State of Utah, as well as in adjoining territory.—*American Beet Sugar.*

Mr. A. H. Gay, Jr., and Mrs. Gay, of Iberville parish, were recent visitors to New Orleans, and put up at the St. Charles.

Sugar Beets in Illinois.

The first convention ever held by the farmers of Illinois in the interest of the sugar beet industry has been in progress at the university of Illinois to-day, in room 321, University hall, the room used as physics laboratory prior to the removal to Engineering building.

A glance into the convention hall this morning at the opening session was enough to satisfy any one that the farmers of Illinois are seriously considering the sugar beet industry. It was thought by some that not a dozen men would attend this convention, but on the other hand, at the opening session more than 150 men were present, and hundreds of thousands of dollars were represented in the meeting.

Many farmers who had attended the Illinois Farmers' Institute remained over to get the benefits of the sugar beet convention, and many others, interested in this new industry, came in during last night to remain through the day. Like the institute, it was one of the most representative bodies of agriculturists ever brought together in the State, and the men who were there were there with the intention of going into the sugar beet cultivation if they could be shown that sugar beets can be raised at a profit in Illinois.

Prof. Eugene Davenport, head of the Department of Agriculture at the University of Illinois, who has taken considerable interest in sugar beets in recent months, presided at the meeting and was warmly applauded when he took the platform. To a reporter for *The Gazette* he said that the attendance and interest shown had gone beyond his expectations. "Why," said he, "the farmers of Illinois are really interested in the cultivation of the sugar beet, and it looks to me as though they have reached the point where they are ready to take up the cultivation of beets. I could not have expected a better attendance and more interest than is manifested at the morning session."

The first speaker of the forenoon was Mr. Theodore Hopke, of Grand Island, Neb. Mr. Hopke learned the art of sugar-beet cultivation in Germany and came to America as an employee of the company conducting the beet refinery at Grand Island. In the season of 1891 he had charge of the cultivation of 1200 acres of beets for the company, and last year went into the raising business on his own responsibility.

He told the delegates to the convention the process, complete, of raising of the sugar beet, how the soil should be cultivated and what the results would be. In fact, he told them everything about the business, and a majority of them took notes during the progress of the talk. Mr. Hopke says that sugar beets can be raised successfully in any soil where corn can be raised successfully, and this means that there is no place on earth where more beets can be raised than in Illinois, if the farmers will only get at it. Men in all parts of the hall fired questions at Mr. Hopke during the course of his remarks, and he answered them quite as readily as they were asked, showing beyond a doubt that what he does not know about the business is hardly

worth while finding out. His address was most instructive and beneficial.

"In selecting the soil for beet raising never select poor soil, for then your work is wasted," said the speaker. "Use the best piece of available land on your farm, for the richer the soil the better the crop and the more profit. Under no circumstances should your beet seeds be planted where land is sandy enough to blow. After your land has been selected and placed in condition for the planting of the seeds, plant the seeds with a drill that has been made for this purpose, in rows about 18 inches apart, or they can be as close as 14 inches and give a good yield. In the close planting there will be many more beets, but they will not be so large, and the better class of sugar is obtained from the smaller beets."

Continuing, the speaker said: "After the seed has been placed in the ground it takes from one to two weeks to germinate and come from the ground, and then the work of keeping the weeds from the plants commences. The field has to be gone over every eight or ten days to keep the weeds out and give the young plants a chance to grow."

As soon as the beets have four leaves they should be thinned out, and must not remain longer than one week without thinning, said Mr. Hopke, as the roots will entwine around each other, if left longer, and make the thinning detrimental to the plant that is left. To perform this work the beets should be bunched with an ordinary 6-inch hoe, cutting six inches of beets out and leaving a 2-inch bunch containing from three to six beet plants. Then, he said, go over the land again and select the healthiest plant in the remaining bunches and pull the others up.

From now to the 1st of August the weeds will have to be kept out and the ground loose and in good condition, several hoeings and several times over the ground with a cultivator before the ground and the beets are left to prepare the sugar, for it is only after this time of the year that the beet commences to prepare the sugar in itself. By the 1st of October the beets are ready to harvest. A machine has been made that will loosen the beets from the ground, and all that has to be done is to go along and pick them up and throw them into a pile, where the tops are cut off, as the factories will not take them unless they deduct a large part of the weight.

"Sugar beet raising has got to that stage where it is considered one of the most profitable crops that can be raised on the farm," said Mr. Hopke.

During his talk Mr. Hopke said that in Nebraska it was hard to get the necessary laboring men, for in winter they worked in the factories and in summer they raised sugar beets. The forenoon was most instructive.

The afternoon session is devoted to a discussion of the methods employed in the manufacture of sugar.—*Champaign (Ill.) Gazette, February 25.*

Sugar in Louisiana 1814-1819.

Editor Louisiana Planter: At the present day it is truly interesting to turn back the pages of history and read over again of the efforts

made by the early settlers in this State, in relation to planting and growing cane, and of whatever progress there was prior to the year 1819.

To-day I collate from an "account of the United States of North America," by D. B. Warden, at one time consul for the United States to Paris, Vol. II, Edinburgh edition, 1819, giving all that Mr. Warden has to say in regard to the sugar industry as he found it at that early date in the State of Louisiana:

In this account he says:

"Sugar cane was first introduced about the year 1782 (in a foot-note Mr. Warden says Dubreuil, commandant of the militia, was the first colonist who constructed a sugar mill at New Orleans), and the culture was encouraged by the unfortunate emigrants from St. Domingo. It is now cultivated from the southern extremity, along Lake Pontchartrain and Maurepas, on the borders of Amite and Iberville rivers to the Mississippi. Along this river to Pointe Coupee and Fausse Riviere; thence West to the Opelousas, along the Teche and Atchafalaya to their mouths, and along the coast to the point first mentioned, including 10,000 square miles, or 6,400,000 acres of alluvial soil, of which one-tenth, or 640,000 acres, are capable of cultivation, without including lands on the rivers Vermillion and Mermentau, where the soil is well adapted to the culture of cane.

Mr. Darby, to whom we are indebted for information, has estimated the extent of sugar lands at 1,000,000 acres, or one-thirtieth part nearly of the whole surface, and deducting three-fourths for other species of culture, there would remain for that of cane, 250,000 acres.

Since the date of this statement in 1814, the sugar cane has been planted on Red river, where it thrives as well as on the Mississippi, and owing to the higher temperature of the water of the former, its growth is more rapid in the months of May and June. Three miles below the town of Natchitoches, in latitude 31 deg. 46 min., the lands of Mr. Boissie produced, as he himself stated, 2500 pounds of sugar of a good quality, and he is of opinion that by a more improved culture, the first cut may amount to 3000 pounds.

Another planter, Mr. Davenport, states that in 1814 he planted five acres with plants, the produce of three-fourths of an acre, brought from the coast, leaving four feet distance between the rows, and that in the fall three-fourths of an acre produced 1000 pounds weight of sugar, and out of the twenty arpents or French acres planted with the remaining plants, eight acres, whose produce he had then ascertained, yielded 9000 pounds, besides molasses. He thinks the produce may be estimated at 1000 pounds an acre.

The greatest evil the planter has to contend with is the hard frost, which destroys the plants and renders annual planting necessary. But as one-fifth of the surface will be sufficient to plant the whole, the produce will be more valuable than cotton. The culture is besides more easy and the crop is more certain, for the cane is not subject to those diseases which sometimes destroy the indigo, nor liable to be

attacked by those insects which occasionally devour the cotton.

It has been calculated that if the lands adapted to sugar cane were brought into cultivation they would yield at the rate of 800 pounds an acre—800,000,000 of pounds weight per annum—which, at the rate of 8 cents a pound, would amount to \$64,000,000. The quantity from 150 acres cultivated by fifty effective workmen is estimated at 150,000 pounds, which, at 8 cents a pound, would give \$12,000, or \$240 for each hand.

The cane is planted in February or March, and ripens in October. The stem is eight or nine feet high and about two inches in diameter. It is impossible to have more than one annual crop, owing to the sudden change of temperature and the great difference between that of summer and winter. The canes intended for next year's planting are pulled up about the 15th of October, and preserved in stacks till next spring, when they are planted in furrows made by the plow at the distance of three feet from each other. The cultivation is like that of Indian corn.

In a foot-note by Mr. Warden I find "Mr. Robin estimates the quantity per acre at 200 pounds of sugar and two barrels of syrup. In 1801-2 the product of 75 sugar plantations, the number then in the colony, was estimated at 5,000,000 pounds of brown sugar and proportional quantity of syrup, of which the profits were thus calculated by Mr. Duvalion: 100 acres, cultivated by blacks of both sexes, will produce 120,000 pounds of brown sugar and the same quantity of syrup. The former at \$8 the quintal, the latter at \$15 the barrel, will yield a revenue of \$11,400, or \$235 per head, or \$114 per acre."

While there may not be so much learned of just how the early colonists cultivated their cane crops, yet from a careful reading of this old history relating to the times and customs of the past, it will be seen that the sugar cane industry has grown by slow stages to its present dimensions, and that there is yet a wide field open and awaiting development which only time aided by science and improved methods and capital can bring about.

EBIN.

Sugar and Civilization.

When the figures of the consumption of sugar are examined, it is seen that the quantity consumed varies radically, and it is a curious fact in those countries in which the maritime spirit—the spirit of navigation, commerce, travel and colonization—is strong, there is very considerable consumption of sugar per capita, whereas in those countries in which the qualities are not predominant among the inhabitants, the consumption is smaller. In England, first among the maritime nations of the world, the consumption of sugar is 86 pounds a year for each inhabitant. In Denmark it is 45, in Holland 31, in France 30, and in Norway and Sweden 25, whereas in Russia it is only 10, in Italy 7, in Turkey 7, in Greece 6, and in Servia 4. The consumption of sugar seems to have very little connection with the relation to the production of sugar, for in Austria, the sugar product of which is large, the average

consumption is only nineteen pounds, while in Switzerland, in which there is no production to speak of, it is forty-four. And another curious phase of the matter is that there is a great disparity in the consumption of sugar in the two tea-drinking countries, England and Russia. The large amount consumed in France is attributed, in part, to the fact that the French confectioners and candy makers, and more especially those doing business in the city of Paris, use in their trade enormous quantities of sugar in a year, adding abnormally to the average consumption of sugar in the French Republic.—*New York Sun*.

Sugar Refining Establishments.

In view of the importance attached in some quarters to the completion of two new sugar refining factories in Brooklyn, it is of interest to notice the statistics of productive capacity of all the refineries in the country, classified as to ownership—that is, those owned and operated by the American Sugar Refining Company, those operated independently of, but in harmony with that organization, and those which are approaching completion and will, it is presumed, be opponents of the so-called trust. Such a list was published this week, giving in each case the daily capacity of the several factories in the several cities. Those controlled directly and operated by the American Sugar Refining Company represent a daily average capacity of 42,700 barrels of sugar and are as follows:

City and Name.	Capacity, Barrels.
Boston, Standard Central.....	5,000
Brooklyn, Havemeyer & Elder.....	9,000
Philadelphia, Franklin.....	8,000
Philadelphia, McCahan.....	1,500
Philadelphia, Spreckels.....	5,500
Jersey City, Jersey City Refinery.....	5,000
New Orleans, New Orleans Refinery.....	6,000
San Francisco, Western.....	2,700
Total.....	42,700

There are three concerns, apart from those connected with the beet sugar industry and which are not taken into consideration, which are not controlled by the American Sugar Refining Company. These establishments and their respective producing capacity are:

City and Name.	Capacity, Barrels.
Boston, Revere.....	1,400
Brooklyn, Mollenhaur.....	3,000
Yonkers, N. Y. National.....	3,000
Total.....	7,400

This gives a total production by the refiners included in the trust and those which under separate and independent ownership are operated in harmony with the larger organizations of fully 50,100 barrels of sugar per day. This, it is claimed, fully equals the consumptive demand of the country, and indeed the frequent stoppage of the various works or the number of times during the year when some of them are shut down for a time or their output reduced is sufficient evidence that at the present stage the properties in the hands of the American Sugar Refining Company are fully equal to supplying the requirements of the country.

At the same time the influence of the pros-

pective new competition seems to have been somewhat exaggerated. The two refineries now approaching completion at Brooklyn are those undertaken by the Messrs. Arbuckle Bros., the noted coffee house, and the other is an undertaking of the Messrs. Doescher, who in the past have been more or less connected with refineries included in the American Sugar Company. Each of the new works is to have an estimated capacity of 2500 barrels, although it is intimated in some quarters that not only is the outturn of the Arbuckle works to exceed this figure, but the same works are apt to be capable of being extended to a much larger capacity in a comparatively short time and at a small outlay. But even with due allowances of this character it will be seen that the possible competition from the new refineries does not appear to be the serious matter that it has been represented to be in and out of Wall street. The appearance in the market of an additional supply of 5000 barrels per day as compared with the 50,000-barrel capacity of the American Sugar Refining Company's refineries, and confined, as their competition must be, to a limited area, seems less likely to influence prices and the condition of the sugar trade in general than the importation on a large scale of foreign refined beet sugars. In fact, in some well-informed quarters there is a disposition to consider the growth of the domestic beet sugar industry as a far more important matter for the great sugar corporation. It is difficult to estimate upon this matter, but as far as can be seen some 5000 barrels per day of beet sugars are already being turned out during the season by beet sugar factories in various portions of the country, with the prospect that by next year this amount will be greatly increased.—*Bradstreet's*.

Some Extensive Irrigating Canals.

During the past three months two large steam dredges have been rebuilt and sent out from the Lamont ship yards at this place to the rice fields of eastern Calcasieu. The Beta, one of these dredges, arrived at her destination this morning, and begins at once the construction of a canal which, when completed, as it is to be by the first of March, will be of sufficient capacity to irrigate several hundred thousands of acres of rice land in the Lake Arthur district. The canal is being put in by the North American Land and Timber Company, which owns about a million acres of the finest land in this part of the State. It will run from a point on the Mermentau river, about three miles below Lake Arthur, in an easterly direction, five miles to the west line of a tract of land sold to the Lakeside Irrigation Company in December last. This tract contains 4200 acres, and is to be put under cultivation this season. The canal referred to will be 32 feet wide and will have a minimum depth of 6 feet at low tide. At the eastern end of the canal is located an immense pumping plant, which will furnish water for the irrigation of the entire 4200-acre tract by means of overland canals. This part of the work is about completed—that is, the overland canals and the pumping plant. The Ivan irrigation pump is used.

Up to the time of the arrival of the dredge Beta, the dredge Gamma was at work on this canal, and had finished about two miles of it. The Gamma is now at work on another canal which runs out west from the Mermentau river and will continue to the east line of a 4100-acre tract which will be irrigated in the same manner as the tract on the east side of the river.

When it is understood that this land produces a minimum of ten barrels of rice to the acre and that it brings from \$2.50 to \$3.50 per barrel, an idea may be obtained as to the amount of rice that will be produced there. The canals which are being run out from the river will answer another purpose than that of supplying water to the land; they will carry out the rice from the farms to be hauled to the mills and to market.

The rice will come to Lake Charles, where the facilities for milling and handling it are so good.

The large canals are of sufficient capacity to furnish water to the land for miles and miles around, and a great many small farms are being inaugurated, having been made possible by the construction of this work. — *Lake Charles American*.

The Hawaiian Clause.

A telegram from Grand Island, dated Saturday, says:

"The Beet Growers' Association had another meeting to-day. A telegram was received from Mr. Oxnard, stating that no modification could be made in the contract, but that the probabilities were that the Hawaiian clause would be withdrawn about March 15, as the measure for annexation would have been voted on by that time in Congress and defeated. This message failed to help matters and members of the association renewed the resolution unanimously not to raise beets on any other contract than at \$4 straight without test. This practically settles the fact that there will be no beet industry in this country this year. But the growers went further and appointed two delegates, Messrs. Murr and Voss, to go to Norfolk and organize the farmers in that vicinity in order that there may be unity of action here and at Norfolk."

If the Hawaiian clause is withdrawn at Grand Island it certainly will be at Norfolk, as both factories pay the same price for beets. For the benefit of all concerned it is certainly to be hoped that that portion of the contract will be eliminated. — *Norfolk News*, March 3.

Small Cuban Sugar Crop Predicted.

The various reports obtained from merchants interested in the Cuban trade are not as encouraging as they were a year ago this time. Early in November last several prominent houses, thinking that the situation was to change for the better, resumed their old habits and sent travelers in the hope of recuperating trade, and at the same time to collect overdue accounts. As one merchant put it, it only took his representative "just three weeks to find out that it was impossible to make any more headway in business than a year ago."

A large sugar machinery manufacturer, under the impression that this season's sugar crop was to be three times larger than the last, also sent a representative to try and secure new contracts. In view of the destruction among the sugar estates, there were plenty of contracts to be had; but out of fifteen sugar plantation owners whom he interviewed, there were only two who could designate a time upon which to make payments, and in each case they wanted six months' time with their pagares (notes) endorsed by responsible New York firms.

Three large shippers of hardware coincide in saying that there is no material improvement in business; orders for more than a year have been for current demand only. There is no such thing in the island to-day as a merchant who orders a quantity of goods sufficiently large as to term it a "stock order." It was only at the beginning of the grinding season that large quantities of iron pipe, boiler tubes, brass goods and other iron and steel material were forwarded in respectable-sized lots, but during February the shrinkage has been noticeable.

The largest amount of rails that has been sent to Cuba in some months went last week; the invoice was valued at \$14,121. Notwithstanding the destruction to the few railroads all over the island, both the track material and equipment shipped this year have been very meagre. Out of the thirty-five concerns published in the issue of this journal February 24, 1897, as exporters to Cuba, only two have gone out of existence on account of business depression; and while the remaining thirty-three are still holding together, many of their office forces are even smaller than they were a year ago to-day, and a number of these merchants have launched out into trade with other Spanish-American countries until a resumption of Cuban prosperity. The number of local export merchants and manufacturers that were engaged in the Cuban trade prior to the revolution were, as far as known, sixty-five. It is estimated that in the second year of the disturbances the withdrawal from this trade by merchants on account of reverses, etc., was 50 per cent. of that number.

The only prosperous business in Cuba since the war has been in the provision line. This, as it is well known, is controlled by a few Spanish monopolists at Havana and Cienfuegos, and government contracts are naturally the most lucrative on account of their being the largest, for the majority of the people within the last sixteen months have become so poor as to enable only a few to obtain the necessities.

In December last it was calculated from trustworthy reports that the sugar crop this season might reach 300,000 tons, but the condition of affairs is such at the present moment that large importers think it doubtful if the total yield is more than 200,000 tons.

Conservative reports from the island place the total crop at 120,000 tons, and state that if up to February 1 only 30,000 tons of sugar have been turned out, they do not see how it is possible for the total crop to reach more than the 120,000 tons named above. Another argument

for this small yield is that the scarcity of labor, cattle, etc., will greatly interfere with the general work. Since December several large plantations have suffered destruction for refusing to obey orders from the insurgent government. At present the States yielding best results are in the Provinces of Santa Clara and Matanzas. The business in fruits expected from the island this year is so insignificant that importers do not consider it worth mentioning.

Messrs. R. Gruffin & Co., of Havana, have just established a branch at Cienfuegos. Their principal business this season will be the exporting of molasses in tank steamers. Their agents in this city, Messrs. R. Marsans & Co., said the other day that about 3,000,000 gallons would be brought to this market. This is the only new enterprise that has been reported in the south side of Cuba since the beginning of the war.

The tobacco industry is a shade better this season, but just what the yield will be is problematical, reports being so varied that an accurate estimate is impossible. The natural resources of Cuba are so great that conservative merchants calculate a return of prosperity in about two years after the close of the war.

For some time past an agent representing several American capitalists has been approaching Cuban land owners, offering to purchase; and it was stated recently that several important deals had been effected. These lands are wanted, according to the agent, for agricultural purposes. The export of cattle to Cuba still continues from Southern ports. Mexico and Honduras are said to be sending considerable cattle for food consumption. — *N. Y. Journal Commerce*, February 28.

Coolie Labor for Demerara

We are not aware whether His Excellency the Governor has sent a reply to the head of the deputation of planters and others, who waited upon him recently to urge the necessity of non-interference with the long-established system of East India immigration; but we learn on good authority that the requisitions for labor will be forwarded to Mr. Mitchell this year in the ordinary way. Already requisitions for over 3000 have been received. It would have been a suicidal act to have blocked the source of our labor supply; for the maintenance of the sugar industry is dependent upon a supply of labor, always available, which experience has proved can be secured only under an indenture system. From London we learn that a representation was made to the Secretary of State regarding his order to the local government to stop immigration, at least for a season, and the reply was that no such order had been issued. Possibly the Secretary of State called upon the Executive here to say whether it would be possible or expedient to suspend immigration for a year, and the dispatch may have been construed into an order to send on no requisitions. Fortunately, the misunderstanding, if such it was, has been cleared up in time, and the system of labor supply, which has enabled the colony to build up its sugar industry, will not be endangered by the threatened interference. — *Argosy*, January 22.

MARCH 12.

WEEKLY MARKET REPORT.

1898

SUGAR.	March 5.	March 7.	March 8.	March 9.	March 10.	March 11.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
Open Kettle.								
Choice.....	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	27 1/2 @ 3	Quiet
Strict Prime.....	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	27 1/2 @ 3 1/4	
Prime.....	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	27 1/2 @ 3 1/2	
Fully Fair.....	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	27 1/2 @ 3 3/4	
Good Fair.....	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	27 1/2 @ 3 3/4	
Fair.....	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	27 1/2 @ 3 3/4	
Good Common.....	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	27 1/2 @ 3 3/4	
Common.....	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	27 1/2 @ 3 3/4	
Interior.....	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 @ 2 1/2	
Centrifugal.								
Plant'n Granulated.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —	Quiet.
Off Granulated.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice White.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Off White.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Gray White.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Prime Yellow.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Good Yellow.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Seconds.....	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	
MOLASSES.								
Open Kettle.								
Fancy.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	Strong
Choice.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Interior.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy.....	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	Strong
Choice.....	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	
Strict Prime.....	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	
Good Prime.....	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	
Prime.....	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	
Good Fair.....	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	
Fair.....	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	
Good Common.....	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	
Common.....	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	
Interior.....	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Dull.
Centrifugal, 96.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated.....	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.84 @ —	4.10 @ —	
Standard A.....	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.72 @ —	3.93 @ —	
Cuba, 96, Ctf.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Steady.
N. O. Fair.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.....	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 0d.	Dull.
A. & G. Beet.....	9s. 8 1/2 d.	9s. 8 1/2 d.	9s. 3 1/2 d.	9s. 8d.	9s. 8d.	9s. 2 1/2 d.	8s. 10 1/2 d.	

NEW ORLEANS REFINED

Cut Loaf.....	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	Strong
Powdered.....	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Standard Granula'd.....	— @ 5.18	— @ 5.18	— @ 5.18	— @ 5.18	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Candy A.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C.....	— @ 5.01	— @ 5.01	— @ 5.01	— @ 5.01	— @ 5	— @ 5	— @ 4 1/2	
Crystal Extra C.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	Mar. 2.....	Tons	223,173
At four ports of Great Britain to.....	Feb. 26.....	"	87,500
At Havana and Matanzas to.....	Mar. 2.....	"	82,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MARCH 11, 1898.

	SUGAR		MOLASSES. Barrels.
	Hhds.	Barrels.	
Received.....	277	22,846	2,368
Sold.....	277	24,209	2,368

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO MARCH 11, 1898.

	SUGAR		MOLASSES. Barrels.
	Hhds.	Barrels.	
Received.....	20,098	1,811,655	174,857
Sold.....	20,098	1,288,515	174,857
Received same time last year.....	81,912	1,186,819	901,291

MARCH 12.

WEEKLY MARKET REPORT.

1898.

RICE.	Mar. 5.	Mar. 7.	Mar. 8.	Mar. 9.	Mar. 10.	Mar. 11.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.	1 75@4 10	1 75@4 10	2 00@4 10	2 00@4 10	2 00@4 10	1 75@4 10	2 00@4 25	Active and strong.
CLEAN, Fancy	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	
Choice	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	Strong.
Prime	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	
Good	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	
Fair	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	
Ordinary	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	
Common	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	
Inferior	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.	2 @2 1/4	1 1/2@2 1/4	1 1/2@2 1/4	1 1/2@2 1/4	1 1/2@2 1/4	1 1/2@2 1/4	2 @2 1/4	
BRAN, $\frac{1}{2}$ ton.	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	
POLISH, $\frac{1}{2}$ ton.	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	17 00@18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAR. 11, 1898.

	SACKS ROUGH.	BBLs. CLEAN.
Received	2,981	298
Sold	8,784	3,787

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO MAR.
11, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BBLs. CLEAN.
This year	438,284	8,501
Last year	374,659	6,979

Sugar.

The local sugar market was easier at the end of the week, with fair receipts from plantations, which met with sufficient demand to promptly absorb them.

Molasses.

No open kettle goods in first hands. Centrifugals strong.

Rice.

A good demand prevails for both rough and clean rice. Prices are well maintained and offerings moderate.

The New Sugar Refineries in New York Progressing.

It now seems likely that the entrance of the Arbuckle and Doscher sugar refineries into active competition with existing plants will be somewhat delayed. It was originally thought that the new companies would begin operations this spring, but it is now stated that they probably will not be much of a factor in the market until autumn, and possibly not until later.

Work on the Doscher sugar refinery is making slow progress. The brickwork is not yet finished, and the roof of the building has not been put on. In addition, there is considerable iron and other indoor work to be done. Some of the machinery is in place, but the interior plant is far from completion.

At the Arbuckle refinery the work is more advanced. The building is about finished, but the floors, which are to be of concrete, are not completed. The machinery for refining is now being put in place. Work on the power house is well under way, but will require some time yet for its completion.—*N. Y. Journal of Commerce.*

Sugar in London.

There have been several minute fluctuations in the speculative beet market, the final quotations showing a slight fall from last week's

prices. There has also been rather more disposition to offer sugar from the continent, but, on the other hand, some large operations in buying back French sugar have been talked about, and Paris prices continue very high. A few unimportant changes have taken place in the statistical position, and the deficit is slightly lessened on a comparison with last year's figures. American stocks are unchanged, meltings by refiners and receipts of sugar being exactly balanced; the tone of their markets, however, remains distinctly firm, in the face of further large Cuban receipts. The comparative scarcity of cane sugar has restricted business in these descriptions, but firm rates are obtainable for refining kinds, while grocery sorts continue in small supply, and have sold readily at fully steady prices to a slight advance in some cases. The imports of crystallized raws to London for the week ending 24th inst. only amounted to 267 tons, the total receipts for this year being 5088 tons, against 5862 tons in 1897.—*Produce Markets Review.*

Sugar Cane in Peru.

According to all accounts the sugar cane industry in Peru is in a fairly prosperous condition, despite bounties. The cultivation of sugar cane in the republic dates back to the earliest period of the Spanish rule. The first canes imported came from Mexico, and were planted in the valley of the Huanuco, and the cane-growing district gradually spread until it extended over the department of Piura, then it gained the littoral, and, finally, cane growing became universal throughout the country. At the beginning only slaves were employed, and during the War of Independence the sugar industry suffered very considerably, owing to the falling off of this labor. Toward the middle of the present century an impetus was given to the industry by the introduction into the country of numerous Chinese colonists, and the plantations were again vigorously cultivated. While the exports amounted to 44,700 tons in 1885, they exceeded 75,000 tons in 1895. M. Alejandro, in an interesting study of this question which has recently appeared, gives the following particulars respecting the annual production of the principal centres of

cultivation: Department of Lima, 31,000 tons; La Libertad, 23,000 tons; Lambayeque, 10,000 tons; Huanuco and other departments, 11,000 tons; total, 75,000 tons. If, independently of the local consumption, the exports of 1895 amounted to 75,000 tons, it is evident that the production is greatly increasing. In certain districts, particularly in Montana, the sugar cane is cultivated exclusively for the distillation of "tafia," a spirit distilled from molasses.—*European Mail.*

Personal.

Mr. Ed. McCollam, of Terrebonne parish, was an arrival at the St. Charles Hotel on Monday. Mr. Collam is one of the leading sugar planters of the State.

Mr. J. M. McBride, of St. Mary, was in the city on a visit a few days ago. He was accompanied by Mrs. McBride, and registered at the St. Charles.

Mr. Wilbur J. Thompson, of Calumet plantation, was in the city on Saturday, and stopped at the St. Charles Hotel.

Mr. A. R. Bougere, a prominent planter of St. John parish, was a guest of the Hotel Royal on Friday evening.

Mr. J. C. Mahon, of St. Mary parish, paid us a pleasant visit during the past week. Mr. Mahon is one of our most valued friends and subscribers, and is a man whose qualities of heart and mind endear him to those who know him. He is now on his way to Barbados, where he will pay a visit to his brother, Mr. J. A. Mahon, of Lyon Castle estate, in the parish of St. Thomas. We wish him *bon voyage*.

Hon. Walter A. O'Neill, of Linwood plantation, St. Mary parish, was in the city during the past week for the purpose of attending the annual meeting of the Louisiana Sugar Planters' Association.

Col. Richard McCall, of Ascension, was in the city on a visit a few days ago.

Col. Gus. A. Breaux, of Lafayette, was in town on Thursday and attended the meeting of the Louisiana Sugar Planters' Association, as did also Capt. Geo. E. Mann, of the Lower Coast.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A PLANTATION BLACKSMITH, wheelwright and carpenter; must be married and sober; to the right kind of energetic man steady employment; Milly plantation. **LEBLANC & DANOS,** Plaquemine, La. 3-10-98.

WANTED—A PLANTATION HOSTLER, sober and capable; must be married; steady employment to the right kind of man on Milly plantation. Address **LEBLANC & DANOS,** Plaquemine, La. 3-10-98.

WANTED—SUGAR CHEMIST DESIRES position at once; has new process of cultivation and clarification; write for further particulars, **W. J. Z.,** 411 Wharton street, Philadelphia, Pa. 3-9-98.

WANTED—A POSITION AS CHIEF ENGINEER and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address **A. B. W.,** 866 Camp street, New Orleans, La. 3-9-98.

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address **W. C. H.,** this office. 3-5-98.

WANTED—EXPERIENCED GERMAN AGRICULTURIST, beet sugar culture a specialty, desires position; best references. Address **Box 309,** Irvington, New Jersey. 3-5-98.

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address **F. G. LORENZ,** 435 Chartres street, city. 2-4-98.

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address **A. P. R.,** care **LOUISIANA PLANTER.** 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address **F. N. S.,** 931 Plety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address **F. F. MERWIN,** Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 38 years of age; have had long years of experience in the cultivation of cane. Call or address **PLANTER,** 518 and 520 Gravier street, New Orleans, La. 2-24-98.

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address **LAWRENCE M. DOOLEY,** Station O, Philadelphia, Pa. 2-8-98.

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address **L. L. D.,** 4301 N. Peters street, City. 2-8-98.

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address **T. D.,** 1129 Orange street, New Orleans. 2-15-97.

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address **PETER SANDERS,** 130 North Franklin street, New Orleans. 2-10-98.

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address **AMMONIA, P. O. Box 57,** Jackson, La. 2-10-98.

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; the best of references. Address **EXPERT,** this office. 2-5-98.

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address **F. SINTES,** 2439 Chartres street. 2-5-98.

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address **WM. BERGER,** 1815 St. Antoine street. 2-5-98.

WANTED—TWO YOUNG MEN, HAVING had considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address **"CRYSTALS,"** care **PLANTER.** 2-5-98.

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address **WALTER DAILY,** 2620 Dauphine street. 2-3-98.

WANTED—A POSITION AS ASSISTANT ENGINEER; can furnish good references; six years' experience. Address **G. HENNINGSSEN,** 518 Louisiana street. 2-3-98.

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address **JOS. J. LANDRY,** Convent, La. 2-3-98.

WANTED—A GOVERNESS! FOR A FAMILY in the country; middle-aged lady preferred. Address **J. S. COLLINS;** Giesmar, La. 1-28-98.

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address **JOS. SERRANO,** 919 Poland street. 1-24-98.

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply **Box M,** Gibson City, La. 1-24-98.

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address **JOHNSON,** 5535 Magazine street, New Orleans, La.

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address **GOTTLIEB KOELLE,** 1038 St. Louis street, city. 1-21-98.

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address **U. WEBER,** Central, La. 1-20-98.

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. **MCCRACKEN BROS.,** Eola La. 1-20-98.

WANTED—POSITION AS STORE OR BOOK- keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address **MAX. P. O. Box 1066,** New Orleans. 1-17-98.

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address **R. J. W.,** 824 First street, New Orleans. 1-15-98.

WANTED—POSITION AS SCHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address **A.,** care this office. 1-17-98.

WANTED—A POSITION AS CHIEF OR AS- sistant engineer; has had fourteen years' experience and can furnish first-class references. Address **F. O. W.,** Lareauville P. O., La. 1-18-98.

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address **H. L.,** 618 St. Louis street. 1-18-98.

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98.

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. **GEO. H. DOUGLASS,** Covington, La. 1-11-98.

WANTED—POSITION ON SUGAR PLANTA- tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address **BOX 73,** Baton Rouge, La. 1-11-98.

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address **A, Box 37,** Jackson, La. 1-11-98.

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address **ENGINEER 2020,** this office. 1-11-98.

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address **P. O. BOX 422,** Logan, Utah. 1-11-98.

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address **P. S.,** 130 N. Franklin street, city. 1-13-98.

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address **W. C. B.,** 537 Henry Clay avenue, New Orleans. 1-5-98.

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address **A. D. LACY,** Patterson, La. 1-3-98.

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address **COMPETENT,** Box 649, New Orleans. 12-21-97.

WANTED—POSITION AS ASSISTANT MAN- ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address **"OVERSEER,"** care of **A. Koehritz,** Assistant Postmaster, Napoleonville, La. 12-30-97.

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address **E. O. W.,** Houma, La. 12-30-97.

WANTED—SITUATION BY A GERMAN- Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address **A. B.,** 618 St. Louis street, city. 12-28-97.

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address **C. LAURENT,** Whitecastle, La. 12-28-97.

WANTED—ENERGETIC AND STRICTLY SO- ber young man wants position as manager of small store on plantation, on salary or commission; gilt edge reference as to ability and character. Address **B. B.,** 1025 Bayou Road street, New Orleans, La. 12-28-97.

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address **W. T.,** care **Daily Journal,** Plaquemine, La. 12-23-97.

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt edge references. Address **B. B.,** 1025 Bayou Road, New Orleans. 12-17-97.

WANTED—A FIRST-CLASS PAINTER, AC- customed to country and plantation work, would like to obtain work either by the day or contract. Address **BRUNO,** 863 Baronne street, New Orleans, La. 12-15-97.

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address **R. V. H.,** 129 Decatur street, New Orleans. 12-16-97.

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898, at living salary. Address **BOB,** Fort Allen, La. 12-16-97.

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Lafourche and Rapides parishes and some New Orleans merchants. Address **SMITH,** care this office. 12-16-97.

WANTED—POSITION AS CLERK IN A COUNTRY or plantation store; not afraid of work. Address **CLERK,** Postoffice Box 69, New Orleans, La. 12-23-97.

WANTED—A POSITION AS OVERSEER OR manager of a sugar plantation. Have had several years' experience. Young man; have a family. Do not drink. Address **E. C. MARSHALL,** Cheneyville, La. 12-7-97.

WANTED—By a young lady of several years' ex- perience, position on a plantation or elsewhere in country, as governess; English, Latin and music; best qualifications; highest recommendations; moderate salary. Address **X Y Z,** care **PLANTER.** 12-3-97.

WANTED—A position as manager on a sugar plantation for 1898, by a practical cultivator of large experience, who can furnish best references. Address **B, care of The Chief,** Donaldsonville, La. 12-3-97.

WANTED—IMMEDIATELY, POSITION AS weigher or timekeeper; also position for 1898 on plantation, as manager or assistant or time and book-keeper; experienced, and can give good reference. Address **J. E. W. DAVIS,** McCall, La. 12-4-97.

WANTED—A POSITION AS STABLE MAN, by sober, honest and capable man, who understands his business. Address **HUSTLER,** 1109 Dante street, New Orleans, La. 12-8-97.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER, A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

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THE LOUISIANA PLANTER

AND

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Texas Sugar Planters' Association.*

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Entrainment.

This subject has been so often and so well discussed among sugar planters that it may seem unnecessary to advert to it at the present time, but our attention has been called to it by a curious kind of entrainment. The smokestack of the United States assay office at New York has been recently repaired. It is 170 feet high, and was built in 1854. The item of interest connected with its repair is that the sweepings from the smokestack were sold for \$1500. There were fifty-two standard ounces of gold and 860 of silver in the soot.

Gold is more than nineteen times heavier than water, and yet it passes off by entrainment or vaporization when melted. The melting point of gold is about 2000 deg. F., and its specific gravity doubtless somewhat less at the melting point; but in some way it entrains, and in the smokestack of the New York assay office of the Federal government fifty-two ounces were found in the soot of the chimney. The chimney is reported to have been built in 1854, but we are left in doubt as to whether these fifty-two ounces of gold represent the entrainment of forty-four years, or some shorter time. The salient fact is that melted gold went up the chimney, seemingly just as melted sugar does.

The Crop.

The weather during the past week has been very propitious for all field operations, and substantial progress has been made in cane planting, this work being now practically finished all over the sugar district. The comparatively high temperature has brought out vegetation, and the early planted cane is coming up rapidly, while stubble is reported from some sections to be making a better stand than it did last year in April. It is perhaps safe to say that the crop is several weeks ahead of the average season.

South Dakota Lights the Way.

South Dakota is fortunate in having a United States Experiment Station within its limits, and under the charge of that able gentleman and distinguished chemist, Prof. James H. Shepard. We have frequently referred in these columns to the good work done by Professor Shepard in his endeavors to attract attention to the many advantages that South Dakota possesses as a sugar beet raising State.

There has recently been a Farmers' Institute held at Sioux Falls, South Dakota, and the opportunity to address a large and appreciative audience was availed of by Professor Shepard, and in another column will be found an account of his address taken from the Sioux Falls Press, which shows how thoroughly in earnest Professor Shepard is in advertising this splendid industry, and what numerous advantages South Dakota has for engaging in it.

Rice in Madras.

Under date of February 3 we have received from our Calcutta correspondent the government returns of the condition of the rice crop in the Madras presidency, which we give in full below. It will be seen that the recent Indian famine and the general scarcity of food stuffs have stimulated the rice industry to the extent of 10 per cent. increased area, some five and one-half million acres being planted in rice, while the condition of the crop indicates but two-thirds average yield from the land.

The government report is as follows

The area sown with paddy up to the end of November last amounts to 5,388,500 acres, or 9.3 and 10.7 per cent. more than the averages of the preceding five and ten years, respectively, and also 6.8 per cent. more than the area sown during the corresponding period of the previous year. Except in the Kistna and Kurnool districts, the increase, compared with the averages and the previous year, is noticeable throughout the presidency, and particularly in the districts of Ganajm, Vizagapatam, Guddapah, Nellore, Chingleput, South Arcot, North Arcot, Madura, Tinnevely and Malabar. The increase, which is generally

attributed to the favorable character of the Southwest monsoon, would have been greater but for the failure of the Northeast monsoon. It is probable that the reduction of local stocks, owing to the large exportations of the past year and the continuance of the high prices of food-grains, have stimulated sowings.

The condition of the crop is reported to be generally good, though damaged by insects in parts of Godavari. The failure of the Northeast monsoon will affect the outturn in many parts, especially in the Carnatic districts. The estimated outturn for the whole presidency is only 67, taking 100 as representing a normal crop. L. E. BUCKLEY, *Famine Secretary*.
16th December, 1897.

Henry C. Minor.

Death has again called from the ranks of the sugar planters of Louisiana, one of their most distinguished men. Henry C. Minor died at his plantation home, Southdown, in Terrebonne parish, Sunday morning, March 13, aged 57 years. Mr. Minor had been a sugar planter from boyhood, his father, Mr. W. J. Minor, having opened up the lands in Terrebonne parish in 1828. Emerging from the financial wreck brought about by the civil war, Mr. Minor began a conservative course of sugar planting and soon became one of the most prominent planters in the State, recognized as progressive, of sound judgment, and generally an exceptionally able man, a good citizen and an honor to his State.

Mr. Minor improved his property as rapidly as the progress of the industry demanded, and at the time of his death was the possessor of one of the best equipped sugar factories in the State, which turned out this last season several million pounds of sugar. He was one of the original members of the Louisiana Sugar Planters' Association which was organized in 1877. He was one of the founders of the Sugar Experiment Station in 1885 and of THE LOUISIANA PLANTER in 1888.

Mr. Minor was a most courtly gentleman and much liked by all who knew him. He was Collector of Internal Revenue under President Harrison's administration, and was elected State senator for his district in 1896, but resigned because of ill health. He has been earnestly pressed by his friends for the position of collector of the port under President McKinley, and, but for his untimely death, would probably have received the appointment. In him the sugar-planting world has lost one of its foremost men, the State one of its best citizens. His friends will mourn his loss for many years to come.

LOCAL LETTERS.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been favorable on the whole since last report. There was a light rain Sunday morning which delayed the work of planting corn for a day, but since then the work has been pushed vigorously. The few who had some cane to plant got it in this week, and we believe now that all cane has been planted. Ploughing land for corn, planting corn, scraping plant cane and digging stubble are the works now under way. Now and then a spot of bad cane is found, but on investigation it generally turns out to be an end, or piece, that for some reason or another was left uncovered and exposed for a time, otherwise the crop is promising and is from three to four weeks ahead of the average season.

We were shown this week at the Augusta plantation of Hon. Andrew H. Gay, a corn crib constructed out of logs. It is made in two bins or sections each 40x30 feet, with a space between for carts to dump, etc., and sufficiently high to contain over 4000 barrels of corn. The sills, girders and rafters were all made of logs and young trees and the barn is put up on cypress blocks, floored with puncheons, and covered with boards made on the place; in fact the only materials bought were laths for the roof and planks to make the openings.

The total cost of the structure was \$318, and its architect, Mr. John Terrell, of Rosedale, the energetic manager of Augusta, is justly proud of his work, especially as he tested its capacity last season. Notwithstanding that more than half the year is past, more than half of Augusta's corn is still untouched and in fine condition and free from weevils. Augusta made last year 7000 barrels of corn on 325 acres of ground, not an acre of which was broken up prior to March 29. This year the crops at Mr. Gay's Grosse Tete properties promise splendid results. All cane was in early and has been scraped, the corn is all planted and the stubble is being shaved and dug. At Augusta there are in plant cane 345 acres and 90 of stubble, and at Shady Grove, adjoining, 200 of plant and 145 of stubble. This cane will be rolled at the Union sugar house, and, unless Manager Walsh looks out, January will find him in the toils.

Messrs. V. & J. A. Berthelot, of the Old Hickory plantation, have contracted with Messrs. Payne & Joubert, of New Orleans, for a double effect evaporating apparatus of the standard type, with a guaranteed capacity to concentrate 150,000 gallons of cane juice each twenty-four hours, bringing it from a density of 6 deg. Baumé to syrup of a density of 27 B., under a steam pressure of not more than five pounds in the steam belt of the first effect. Mr. Payne of the firm named above has placed and superintended numerous large contracts for sugar-house machinery in this parish, always with satisfaction. Some time since a prominent planter of the Bayou Goula neighborhood told us that Mr. Payne knew better than any man he ever saw how to place ma-

chinery so as to economize space and give satisfactory work. Mr. Victor Berthelot thinks with this addition Old Hickory will be enabled to take off their crop without any more fuel than what is now on hand, thus saving expense as well as time.

At a special meeting of the police jury, held Tuesday, Hon. Andrew H. Gay and Mr. E. C. LeBlanc were selected to form, with a third member to be named by the town council of Plaquemine, a committee to consult with Major Quinn, United States engineer, about the Bayou Plaquemine drainage question.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been fairly favorable for field work during the past week, no rain having fallen since last Saturday night. Monday it was impossible to continue the work of planting, but on Tuesday those who had not yet finished were able to resume. Since then field operations have been pushed forward as rapidly as circumstances will permit.

Little or no danger is now apprehended from cold sufficiently severe to injure the cane. Indeed, the weather has been exceedingly warm and springlike during the past week, the thermometer reaching up in the 80s during the day. With vegetation springing up on all sides and a temperature sufficiently high to turn one's thoughts to fans and ice water, the people hereabouts may well be pardoned if they consider the winter of 1897-98 as numbered with the things that were.

Information as to the stubble and plant cane continues of a favorable character. In black land and in low places where water remained on the ground any length of time, some defective seed is found, but the bulk of the cane is good. Stubbles that have been dug are beginning to show up nicely. Considering prevailing conditions, it can be said that the cultivating season of 1898 has begun most auspiciously. The work of planting has almost been finished, and with a continuation of the present favorable weather it is quite safe to say that within two weeks all that is to be planted will have gone into the ground.

During the past three or four months the money market, so far as it affects sugar property, has eased up considerably. Money at from 6 to 8 per cent. on long time payments can now be obtained with ease. For numerous and obvious reasons this state of affairs is most gratifying, particularly to those who need financial assistance.

On all the plantations there is an abundance of labor, which is being paid 75 cents per day. Sambo works willingly and cheerfully, and seems altogether satisfied with the prevailing rate of wages.

The river at this point is well within its banks, and the condition of the upper river and tributaries justifies the hope that we shall escape the danger that menaced the sugar district last spring.

A telephone line is projected along the river front of this parish, from Bruy Landing (connecting with the lower coast) to New

Roads, Pointe Coupee parish. Such a line would be of great benefit to our people, particularly during high water.

A meeting of the police jury last Monday and the assembling of the District Court brought together some of the most prominent planters in
WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The last week has marked the coming of warmer and better weather. The last few nights have been warm and the days decidedly an improvement on the cold weather of the early days of March. Under the more favorable conditions the cane planted first is coming up rapidly and a continuance of the present spell means that in a few more weeks all of the plant will be up and showing that is coming out of the ground.

The stubble, as previously reported, is very much in evidence, and there is already a much better stand of stubble than could be seen last year in April. Planters in Assumption, from all I can learn, are much more ahead with their work than those of the river parishes. Here about all of the cane has been planted, much of the plant cane scraped, and the stubble either shaved or nearly so. The corn land is ready to be planted and last week much of it was planted.

At present writing the weather is cloudy and a light rain has fallen. It has not been so far enough to interfere with field work. The whistle of the tugs shows that the coal men, fearful of low water, are rushing in their coal. A boat is sunk at the Rosedale line, rather trenching on the channel, but with a continuance of the present rate of fall in the bayou there will be ample opportunities to unload it and get the boat out of the way.

Mr. Clarence Barton informs us that this year he has made a larger planting than he has in any previous year. Woodlawn, too, this year will have more plant cane than ever before for the mill. As a rule the planting will equal that of last year. We believe that the amount of improvements erected this year will equal if it does not exceed that of any previous year. In my letter of next week I will probably be able to report two important improvements now in contemplation. The brick men tell me that the demand for their product was never so brisk nor so early. Several have sold all on hand and have engaged the next kiln ahead. This means plenty of work at fair wages to the mechanics and the distribution of a large sum of money in the country that is bound to help all.

This country would be a veritable paradise if we could get rapid transportation of our products to the market. But along with the railroad we want the railroad commission.

A railroad would mean active competition, a better price for cane, an independence in case of the destruction of one of the large factories at the beginning of grinding or during that season. We will have a railroad at no distant date, and then lands will be so high that the Klondyke gold-seekers will come to the fertile valley of the Lafourche and invest

in a perfect climate their hoardings from the Arctic regions. Perhaps the expression perfect climate is drawing it a little strong, but the Constitutional Convention will next take up the subject of climate when it has finished regulating the suffrage, and we think there will be fewer obstacles in the way of giving satisfaction.

The roadman in the lower district has done some good work in filling holes and the traveler is much more religiously inclined since the bad places are disappearing. There is some opposition to this system of road working. We trust that after a full and fair trial it will prove a complete success. But of this
MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: The more favorable meteorological influences of recent date have enabled planters to progress more rapidly with field work than at any time this season, and now it can be reasonably anticipated that cane planting will be brought to a close throughout the parish at an early date. All fears of an injurious cold wave are about past, as the pecan trees are now budding and the fig trees are in leaf.

Corn planting, stubble shaving and digging may be witnessed on the different places where the cane areas have been seeded. On the lower Terrebonne, in the neighborhood of the refinery, plantings will terminate about the end of the week, should the weather continue favorable. On the line of railroad the plantings have been brought to a close on some places, and on others the operation is well advanced. On the Chacahoula, at Poverty Flat, of Messrs. McCollom & Cooke, and on Forest Grove, of Messrs. Buford & Bernard, cane planting may terminate this week. On the lower Bayou Black the Messrs. Bonvillain Bros. still have cane to plant, and on the places of Mr. J. D. Minor the work has been brought to a close. But few complaints are made as to the soundness of the seed, yet its sprouted condition is detrimental.

The discussion of stubble shaving at the last meeting of the Louisiana Sugar Planters' Association was opportune, as many are inclined to carry the operation to extremes. That light and early work may be advantageous is probably true; but to shave deep and late is certainly at times at least very injurious. The implement in time may be so improved that the work will be done very early in the year when the land is too moist to plough, by operating prior to ploughing, removing the top crust and severed stumps, if desired. Where labor is unreliable, then a greater recourse must be had to mechanical devices to expedite any and all field operations.

Wednesday of last week was favorable, also Thursday, Friday and Saturday; on Sunday light showers fell during the forenoon, not enough to interfere with ploughing the next day, Monday; Tuesday and Wednesday clear and sunshine, with spring-like temperature. The following is the official report from Schriever:

March.	Temperature.	Sunshine.	Rainfall.
7.....	73.4 44.3	50	.....
8.....	68.0 43.8	75	.23
9.....	70.0 43.5	100	.....
10.....	77.4 44.0	75	.....
11.....	72.8 52.0	75	.....
12.....	79.4 60.0	75	.....
13.....	80.3 62.0	100	.29
	74.2 50.2	78	.26

After a prolonged illness, Mr. H. C. Minor, of Southdown, died at 1:30 A. M. on the 13th of March, and was buried the following day. His remains were followed to their last resting place by relatives and a large concourse of the citizens of the parish, and friends from elsewhere, who manifested deep sympathy for the family in their bereavement. Bishop Sessums, of the Episcopal Church, conducted the religious ceremonies, assisted by Mr. Prosser, the pastor of the Episcopal Church here, and the Rev. Mr. Brewster, of New Orleans.

During the war, in the absence of his elder brother, Mr. Minor aided his father, Capt. Wm. Minor, in the management of his large landed estates, coming to this parish and taking charge of the Southdown and Hollywood estates, where he continued to make his home. Under his supervision the agricultural and manufacturing capabilities of the estate have been materially developed, and the property is now one of the finest in the State. Descended from a long line of Whig ancestors, Mr. Minor, always conservative and actuated by what he deemed best for the future prosperity of the State, when he thought duty demanded it, advocated the principle of protection to American industries, and became a National Republican in politics. The dependent, both white and colored, have lost a sympathizing friend and the State an exemplary and valued citizen.

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The weather for the past week has been more favorable for farm work than for several weeks prior and most of our farmers have taken advantage of it. Cane planting is about finished and lands are being rapidly prepared for corn, cotton and rice. The increase in all crops will come up to the reports heretofore given in THE PLANTER with the exception of cotton, and every indication points to a decrease in the acreage of that staple.

Perry, La., is to have a central sugar refinery at an early date. It will be remembered that mention was made in THE PLANTER some time ago about Mr. O. M. Nilson purchasing the old Perry farm, two miles south of Abbeville, who would after this year turn it into a cane plantation. Well, Mr. Nilson bought the place and has organized a company with a capital stock of \$500,000 for the purpose of erecting a large refinery thereon. The charter of the company, which was christened the Vermilion Sugar Company, Limited, is now being published in the *Republican Idea* of Abbeville, and the organizers are O. M. Nilson, W. S. Nilson and Joel Moody, of Perry, La., and W. J. Hughes, of St. Louis, Mo., and W. L. Gaines, of Kansas City, Mo., with O. M. Nil-

son, president; W. J. Hughes and W. L. Gaines, vice presidents, and Joel Moody, secretary. The site for this plant, which is to be one of the largest and most up-to-date plants in the State, is now being leveled and put in shape and it is more than probable that the building will be erected this summer. The location is one of the finest in the State, being located about one and a half miles south of Abbeville, and just north of the town of Perry on the bank of the Vermillion river, and directly in the heart of the cane producing section of this vicinity. For miles in either direction from this mill are hundreds of acres of undeveloped sugar lands that will in a couple of years supply two mills of the size of that to be erected by the Vermillion Sugar Company, Limited. This is something that the country around Abbeville has needed for years and will, in the opinion of your correspondent, do more to build up the country than any other move that could have been started. They will have their plant ready to grind the 1899 crop of cane. This same company also has in view the erection of a large plant on the west bank of Vermillion river, ten miles south of Abbeville on the Charity place, a large plantation owned by Mr. O. M. Nilson. There is nothing definite about this, however.

Mr. Adrienne Nunez and wife, of Live Oak plantation, left Monday morning for a week in New Orleans.

Mr. J. T. Labit, Abbeville's efficient postmaster, and wife, are spending the week in the Crescent City. Mr. Labit is attending a meeting of the Grand Lodge F. and A. M.

Mr. O. M. Nilson, president of the Vermillion Sugar Company, limited, came in a few days ago to attend to business pertaining to the company.

Mr. W. S. Nilson had the misfortune of getting his ankle broken a few days ago. He was driving out near the I. & V. Railroad depot south of town when his horses became frightened and ran away, throwing him from the buggy with the above results. He is doing well.

The Foley Bros., of Indiana, who recently purchased 1000 acres of rice land in the western part of this parish near Shell Beach, have arrived with stock and implements to put the land in rice this year. P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: Progress is the word which fits best the efforts now being made by both the planters and farmers in their rush to forward ploughing and planting. It appears from what can now be gleaned from the farmers that a big corn crop is being planted this spring, to be followed at laying by with a heavy pea planting for the purpose of improving and building up the soil.

In looking over the situation and counting the cost of fertilizers and considering the low rate at which the farmers have sold their cotton seed, it would have been a decided advantage to have kept the seed at home and applied it to the corn, cotton and cane lands. There is hardly room to doubt but that the cane grower

could save a nice sum by purchasing cotton seed instead of meal to apply to cane lands, when the seed fetches no more on the market than it has for some months past.

While the effects obtained from the whole or crushed seed may not be as quick as that from the meal, there is hardly any reason to doubt but that the results obtained from the employment of the whole or crushed seed are much more lasting and the benefits greater than that received by the application of cotton seed meal to either cane or corn.

But fearing that I may be treading on prohibited grounds, I shall leave the matter as it stands to our soil chemist to decide upon.

THE PLANTER's scribe called during last week on Mr. C. F. Knoll, the busy proprietor of the Ellen Kay plantation, and was, to say the least, somewhat taken by surprise to find planting so well advanced.

In the field I found the manager, Mr. R. Wood, putting the finishing touches to the last planted rows of cane. The land was in fine tilth for the plow, a good token at this season of the year for beautiful crops to follow; 225 acres have been planted to cane, every acre of which will produce from thirty to forty tons with most any sort of a season, except one of extreme drought. The seed cane to plant this 225 acres was found to be as sound as a gold dollar from beginning to end.

Mr. Knoll will have some 800 acres in cultivation this season, including the lands rented to tenants, all of which really come under the same head. The stubble on the place is, judging from present indications, sound from beginning to ending. Mr. Knoll will plant a large acreage to corn and pease, preparatory to increasing the acreage to cane next year.

The drainage on both the Ellen Kay and the Shirley plantations is now being attended to in a manner to fully drain the soils of the surplus water as rapidly as it may be possible to do with the open drains. Mr. Knoll's idea is, that to attain the most favorable results from the soil, the first essentials are good drainage, deep fall ploughing, giving the soil a thorough breaking up, and by the constant planting of pease to preserve the fertility of the land. For cultivating the soil purchase none but the best make of planting implements, use them intelligently, and when not in use keep all tools painted and under shelter to save money, time and labor.

Mr. Knoll is now having a building constructed large enough for storing on the lower first floor all of his wagons and carts, heavy plows, etc., with an upper floor so arranged that tons of hay may be stacked into it and then preserved until called for on the place as needed. In every respect the Ellen Kay and Shirley plantations, with such a progressive man as Mr. Knoll as proprietor, can not possibly be anything else but successful.

And there need be no surprise felt when it is stated that the probabilities are that next season will see a sugar factory building on Mr. Knoll's Shirley plantation, which lies just across the bayou from the beautiful Ellen Kay plantation.

The majority of those planting cane are now

through and are planting or preparing to plant their corn crops.

The weather for the past two or three days has been warm and showery. Vegetation is springing into life, presaging an early spring, and it is to be hoped a season of bountiful crops to harvest. ERIN.

St. James—Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: It seems that the long-looked-for fair weather has at last come to stay, and we are once more enjoying the delights of sunny days. Although the weather is still somewhat cloudy we have not been showered upon by rain of any consequence for the past two weeks. The atmosphere is remarkably mild and more inclined to warmth than cold—and were it not that it is yet a little too soon to think that winter had retired we would almost think that spring was already here, as everything suggests its return. Trees and shrubs in general are sprouting. The planters hope to soon have the satisfaction of seeing a green trace all along the cane rows, marking the sprouting seed. All have a good opinion of cane seed this year, and every planter expects to reap a heavier crop this fall than has been seen or heard of in a long time. We hope they are speaking the truth. In the fields where planting is finished, plant cane is being scraped, and in some places digging the stubbles has already begun.

Messrs. Pugh & Himel, of Wilton plantation, who are well-known hustlers, have purchased a second-hand outfit for their sugar house, consisting of the mill, machine and vacuum pan of the Elm Hall plantation of Mr. Godchaux. Although it is second-hand, it is still a fine outfit, and will doubtless prove its capacities when the time comes to grind the immense crop of the Wilton plantation. Mr. Willy Poché, of St. James, has the contract to put up the extensive repairs.

Last Saturday at the court house took place at public auction the sale of the David and Hester plantations, belonging to the McCann succession. They were bought by the Gramercy Company, for the sum of \$95,000. This sale has been effected merely to acquire good titles for these plantations, which they did not have, for they have been the property of the Gramercy Company for some months past.

Our bad public thoroughfares are getting almost equal to shell roads. With the help of the road machine they have been put in a very fine state, and no more complaints are heard from those who were compelled to go through them to fulfil their daily duties.

Last week Dr. F. L. Haydel, formerly of St. James parish, died in St. Louis at the advanced age of eighty years, heart disease being the cause. His death is greatly regretted by a number of friends and relatives here.

CONVENT.

Mr. William Helmke, the pan man on Raceland during the past campaign, is reported to have distinguished himself in the usual way by getting fine results. Mr. Helmke is known as a top notcher at his trade and proposes to stay at the head.

FOREIGN LETTERS.

Berlin.

(Special Correspondence.)

BERLIN, February 26, 1898.

Editor Louisiana Planter: The weather is now equal to the season, or, I should rather say, the season is equal to the weather, for the former phrase would imply that the weather has changed, which, however, is not at all the case, only the season is now sufficiently advanced as to harmonize with the wild and changeable weather we have had all this time, and particularly changeable it was last week again. At the commencement it was nice, dry and springlike, afterward rains and snow storms set in, and at the close cool and bracing weather was prevailing, and in some highly situated locations they had even light frosts. The meteorological conditions are at present only of interest on account of the beginning of field work, and in this respect they are far from being satisfactory, inasmuch as they are far too wet, so that the ground is still inaccessible for ploughing. There is, of course, no time lost yet, for it early for any kind of field work, and for a normal and regular start it would be now just the time. The agriculturists are fearing frosts still, as it is considered, as a rule, that the winter sooner or later will have its own, and for that reason it is possible that the sowings of beets are effected with some hesitation. The same review of the weather and its possible consequences is taken abroad, where the spring is even further advanced than in this country. More particularly is this so in France, where they complain already of the weeds overrunning the fields; besides it is feared that in consequence of the mild winter the vermin will increase on an unusually large scale and do more harm than in average years. As to the importance of beet sowings nothing new of particular interest has transpired.

The bounty question, I am sorry to say, has not yet appeared in the order of the day. True, there is at present no date fixed or even probable for the meeting of the conference, but the newspapers in Germany, Austria, France and England persistently discuss the subject and let it not come to rest. Once France is said to refuse to make any concession whatever; another time she is represented to be willing to treat on a certain basis with a view at least to meet to some extent the conditions of the other powers. There is obviously a strong party in England in favor of abolishing the bounties. Evidently the English do not like to incur too heavy an expenditure for the benefit of their West Indian colonies, and as the latter are clamoring in the first place for the annihilation of the bounty system, the mother country would be cheaply off if they have their will done. But nevertheless the bounty, it seems, shall be no longer counteracted by countervailing duties, as many persons had proposed, but by an absolute prohibition of bounty-fed sugar. This way, they believe, will bring France to terms. But quite apart from the fact that the exclusion of any kind of goods is diametrically opposed to the

principles of free trade, it would be no less in opposition with most commercial treaties, and if the English become aware that France, for instance, will take retaliatory measures, it is doubtful whether the British Parliament would approve of a policy which necessarily leads to commercial if not political complications. Any way the vexed bounty question is as vexed as ever.

As an advantage of the feeding of molasses to horses, together of course with some other substance such as meal or peat, it has been found, and by experiments satisfactorily put in evidence, that it is a good prophylactic means against the disease of colic. A farmer who keeps twenty-four horses in his stable had, during two years, not one case of colic, and he feeds his animals three pounds of molasses together with three pounds of ground peat per day. The latter stuff proved not only quite useful, but was also cheaper, and the cost of feeding a horse this way is reduced also for one year to the extent of 44 marks or \$11. In the report from which this is clipped it is especially stated that the use of peat has not affected in any way the force and vitality of the horses.

In the principality of Anhalt (Germany), which on its small territory counts twenty-eight sugar factories, the government has issued a decree regulating the employment of children in beet culture. Only children eight years of age can be employed for a whole day, the working time of which is fixed to last from 6 o'clock A. M. to 6 o'clock P. M., with two hours pause at noon. Younger children (than eight years) must be employed only for one-half or two-thirds of a day. If the number of the working children is greater than twenty-five, the two sexes must be kept separate on their way to the working place, and if possible also on the latter. Prior to morning tuition it is forbidden to employ children in field work at all, and the farmers or manufacturers failing to strictly observe this rule are fined 15 marks.

Business and profits of our refineries are "picking up," as you say in America. The board of directors of the Rositz refinery, an establishment which treats only molasses by means of the strontia process, has resolved to pay for 1897 a dividend of 14 per cent., as against 12 per cent. in 1896. This factory, it must be mentioned, had an extra profit derived from a certain financial operation, but the proceeds of this operation have been mostly used for very liberal writings off. There is the Provincial sugar refinery, at Stettin, which proposes to pay 10 per cent., as against 5 per cent. last year. The Frankenthal refinery gives 16½ per cent., the same as in 1895-96. The Refinery Danzig has covered in 1897 a debit balance of 72,948 marks, and carries forward a credit balance of 16,286 marks.

A company of shareholders has been incorporated to build a sugar factory in Paraguay. Their capital is 700,000 pesos (paper currency), and the capacity is to be 120,000 arrobas sugar, which quantity is intended to replace the import of sugar from France and Austria.

The markets continued in the first days of the week rather firm, and prices could obtain some further slight advances. This improvement of prices, however, attracted larger

offerings, and a part of the latter could later on only be placed at a decline, so that prices all around close nearly on a par with last week's closing quotations, viz.: For actual 88 per cent. rendement, at Magdeburg, at 10.10 to 10.32 marks, and for delivery February, at 9.7 marks, at Hamburg, f. o. b. The improvement of refined, noted last week, has not made any progress, and, with moderate transactions, quotations remain unchanged.

ROBERT HENNIG.

Barbados.

The past fortnight has been exceptionally dry—indeed, so far February has been woefully deficient in rain water; that the young plants have suffered goes without saying. In some districts there are too many dead holes, giving the fields a patchy appearance. Showers are wanted to bring up the supplies and promote regularity; but, notwithstanding the recent scarcity of rain water, the young crop continues to look well on the whole, while fields, beautiful in their regularity, please the eye on every side. It is because our soil is so beautifully tilled, the contrast so marked between the clean surface and the green rows of plants, each one set in its own square, that the slightest defect of growth, a slight tinge of yellow in the blade, or a "dead hole," so quickly strikes the eye. To us rain water is life—a deficiency at a critical period of the sugar canes' growth, and what period is not critical?—means loss; more plith, less juice and an inferior yield. It is surprising, too, how quickly our marly, dripstone soil soaks up the water, leaving the surface dry; no wonder is it that the planter, having no watering-pot, perpetually cries for the rain and measures so carefully the precious drops as they fall, for these inches of rain are the blood of the cane, which is the life of our country. And yet, to us with our imperfect machinery, nothing can be more disastrous than a wet crop season, *absit omen*, for in this crucial year of grace much depends on the crop about to be reaped—it is a thing to be talked about with bated breath. Individuals go under and nobody cares, but curtail exports, and therefore imports, and everybody cares.

The burden hitherto has been almost solely individual, galling the bare neck of the investor in sugar plantations, which are kept in beautiful order whether they pay or not. So far as the upkeep goes there is no stint and practically no change, except that necessity has compelled the planter to be more careful; money can not now be scattered recklessly, but agricultural wage earning remains much in its old position. The possibilities for the energetic wage-earner are much the same now as ever, his weekly earnings depend altogether on himself, and as there is a dearth of agricultural laborers in this island good workers are always in demand. It is far otherwise with the inferior and desultory workers and the ever-increasing class of loafers and idlers—the parasitic class who burden the country with pauperism, and when employed scamp their work. But every man in this island, whether worker or idler, lives, and somehow keeps fat, and the estate system maintains them all, for on the working of the planta-

tions depends the exports which bring back the imports which feed and clothe our large population on such easy terms. Those who would change all this in the interests of the laboring population and give to each man an acre and a cow hardly know what they are talking about. The contribution of the existing peasant proprietor to exports is practically nil, whilst the ground provisions grown on his holding are not sufficient to maintain his family, who without employment on plantations would be stranded. The volume of our trade depends entirely on the output of our plantations, and swells or contracts with the quantity or money value of that crop; it is, therefore, matter of prime importance to the general population to maintain our systematic cultivation and not allow the estates and consequently that system of agriculture to be abandoned. To maintain our island in anything like comfort, exports to the value of at least £600,000 per annum are necessary. Low prices and the want of markets have of late years forced us to live on less, and the question is how best to counteract this downward tendency.

The only possible way is to make more out of the crop which the soil produces, and that can only be done by improved systems of crushing and manufacture. Something has to be done to rescue our island from stagnation, and we should prepare so as to take advantage of the revival of the sugar trade which must sooner or later take place when Great Britain awakes to a sense of right, and of her own permanent advantage, and removes the bounty shackles with which her own greedy and shortsighted policy has allowed the trade to be cramped and bound. Nature has made our island a sugar mine, and pity it is not to have the appliances for gathering in its fullness the produce of the soil. We have recently had the advantage of comparing some interesting results of single and double crushing—comparisons made between some of our largest and most powerful mills at work in Trinidad—and the advantage is all of 10 per cent. or more in favor of the latter. Again, in our open kettle evaporation we are great losers. Percentages fail to bring home to the mind the actual loss, but looked at from the money point of view it grows prodigious. But in the following way the figures become convincing, and they are purposely put below the mark, for where now the soil-output of sugar cane is manufactured into a value of say £600,000 it would by double crushing, proper manufacture, and increased value swell to a value of £900,000.

Statistics abound which prove that the gain with modern machinery is much greater than this, but it is enough for our present purpose to put the matter in concrete form, and to accentuate the woeful waste by which we are impoverished, for, as we have indicated, and as can be readily proved, we lose in value very nearly one-half of our annual crop. Still, *festina lente* must be our motto, and the rusting uselessness of Demerara and St. Lucia remain a salutary object lesson. Our common process has kept us in touch with our only customers the American refiners, and from that frail

round of our ladder we can not venture to take our foot until it please the British Government to cease from ruining us by giving us free markets. The early offers of the season are \$1.60 for muscovado in hogsheads, \$1.70 in bags, at which prices, and perhaps lower, the year's crop must perforce be given away. Individuals forced by their environment to carry on their estates to their own ruin and loss are thus placed in an industrial predicament unique in the annals of trade. Mr. Chamberlain told the British public that they were making money at the expense of their colonial brethren; we may go a step further and tell them that they have driven the British sugar cane planter into a tight corner from which there is no escape, and in which they are compelling him to immolate himself, and to commit a sort of industrial hari kari.—*Agriculturist Reporter, February 19.*

Sugar as a Stimulant or as a Nutrient.

It is a fact well-known to Alpine tourists that on difficult climbing excursions an increased desire is felt for the consumption of sweets and sweetened food, and many who never touch such things at home devour large quantities of them on these tours. It is also frequently remarked how eagerly the guides appropriate any sugar that may be left over and consume it en route. At the instigation of the Prussian war office investigations have recently been made, by means of a special apparatus, into the question whether the consumption of small quantities of sugar rendered the tired muscles capable of renewed exertion. In order to obtain a practical result, the person who was made the subject of the experiment was kept totally ignorant of the object of the experimenters. One day a sweet liquid was administered containing thirty grams of sugar, and on the next day a similar liquid containing a sufficient amount of saccharine to render it indistinguishable from the other as regarded taste. When a very large amount of muscular work had been performed, it was found that a greater quantity of work could be got through on the days when sugar was given than on the days when saccharine was given. The system had become very poor in sugar, in consequence of the severe muscular effort which had previously been gone through, and hence the administration of a comparatively small quantity of sugar had the effect of producing an increased capability for work.—*Times-Democrat.*

Mr. J. C. Braud, of Lafourche parish, was a guest of the St. Charles during the past week.

Gov. H. C. Warmoth, of the Lower Coast, was up in the city on Monday and put up at the St. Charles Hotel.

Mr. Adam Short and Mr. A. M. Underwood, both from the splendid Bellevue plantation, of which they are co-proprietors, were visitors to the city during the past week, and went down to the Royal Hotel of Colonel Rivers.

Mr. C. B. Maginnis and Mrs. Maginnis, of the splendid Woodlawn plantation, were in the city on a visit a few days ago, and registered at the St. Charles Hotel.

BEET SUGAR.

Salinas, California.

Since our last report an immense amount of work has been done. The two immense steel smokestacks are completed and the scaffoldings removed from the interior. The steel framework of the boiler house has been finished by the Risdon Iron Works and the brickwork has been almost completed as far as the eaves. The immense furnaces under the forty-eight large boilers are being rapidly bricked and the work will soon be commenced on finishing the roof.

In the storeroom are huge racks filled with rubber and iron washers, steel nuts, braces, bits and all sorts of spare tools. In one corner of this room a space has been enclosed and within it are sixteen draughtsmen busy all day drawing plans, etc., under the direction of Mr. Schierholtz.

The machine shop, blacksmith and carpenter shops show increased activity in the employees, who are busy getting out material for the factory.

Going across the river, the immense excavating work is still being carried on. Some 100,000 cubic feet of earth has already been removed. On the crest of the hill above this huge silo pit, Contractor McMahon has a force of men who are busy with scrapers getting ready for the excavations for the immense reservoir. This will be lined with concrete and will have a capacity of 1,300,000 gallons.

Recrossing the river several of the artesian wells are to be seen, the water coming to within a few inches of the surface in every one thus far sunk.

The centre of attraction, the main building, looms up in all its grandeur as the visitor approaches it. The north half, five stories high, is up. Twelve roof trusses are in place and there are thirty-eight crystallizers in position on the third floor. Seven of the immense vats for boiling the sugar will be hoisted to their place to-morrow. This portion of the main building will have five floors and is 250 feet in length.

Adjoining this for 165 feet will be the machinery portion of the factory. There will be one floor only. Above the second story level it will be clear of obstruction to the roof. The south end will have three floors. It will be 170 feet long, making a grand total of 585 feet. In the centre of the middle section workmen are busy building a large concrete foundation for the heaviest portion of the machinery. The entire section has bolt rods in place for the machinery.

The erection of the steel work by the Risdon Iron Works, under the superintendency of George R. Field, will necessitate the use of upward of 500,000 rivets, all of which are driven red hot. The labors of the riveters and drillers are much lightened by the introduction recently by Mr. Field of a pneumatic plant for operating drills, reamers, as also for driving rivets by means of compressed air. The plant, which belongs to the Risdon Iron Works and was installed for handling this job alone, consists of a 60 horse-power boiler and one air-

compressor, which generates 300 cubic feet of air a minute. The men engaged in the work are up on the fifth floor, and some idea of the power of this plant can be had when it becomes known that each riveting tool and drill requires 60 cubic feet of air per minute. The air is compressed into a receiver through a pressure of upward of 100 pounds to the square inch, and is then conveyed to the fifth story by means of a 2½ inch gas pipe. The steel frame will be finished inside of seventy days.

Across the road from the factory grounds can be seen the forty cottages erected for Mr. Spreckels' workmen, every one of which has been let in advance. Carpenters, plasterers and painters are at work hurrying to finish the buildings before April 1. There are twelve different styles or architecture to be seen in the houses and some sixteen colors. The town is laid out in streets and alleys. Fronting Main or Railroad avenue is the large three-story hotel, with its seventy rooms. The second floor has rooms en suite, the third, single rooms. The plumbing work is roughed in and the building enclosed. The flooring not having arrived delay is caused. The painting, however, has commenced under contract by Messrs. G. E. Hart & Co., formerly of San Jose. Lathing will be commenced to-morrow. There will be a sewerage system for the town, the main pipe being twenty-four inches in diameter, and the smallest pipe four inches. Every house will be lighted by electricity and will have sanitary plumbing. There have been several places staked off alongside the hotel for stores. It is expected that the town of Spreckels will be fully in operation by the 1st of May at the latest.

No steps toward erecting the main office have yet been taken.—*Index, March 6.*

Watsonville, California.

Beet growers of Ventura county are very doubtful about the season, owing to lack of rain.

The portion of the Moro Cojo ranch near the ocean is expected to be largely given over to sugar beets this year.

It is feared that the beet acreage will be exceedingly limited in the Salinas valley south of the Moro Cojo ranch.

The Chino factory announces that it has 11,000 acres contracted for beets. If that section does not get more rain there will be much less than 11,000 acres in beets. Chino has had considerably less rain than this valley.

It is reported by the *Gilroy Gazette* that Claus Spreckels has made an offer of six square miles of the Soap Lake tract, near Gilroy, owned by Henry Miller. If purchased the land will be given over to sugar beet cultivation.

The dry weather has made a big cut in the San Benito and Santa Clara county beet acreage. Seven thousand acres had been reserved for beets, but not over a third of it is expected to be cropped in beets, unless that section is soon favored with considerable rain.

The Western Beet Sugar Company is offering farmers of this valley an opportunity to contract for beet acreage this year, and will strike out the objectionable clause relative to

delivery of beets at either Watsonville or Spreckels. The beets will be delivered at the Watsonville factory, and contracts will so read. This does away with the feature of the contract objected to by local growers, and it is to be hoped that Pajaro valley's beet acreage will now be increased.—*Pajaronian, March 3.*

Eddy, New Mexico.

The season for beet planting can now be said to be fairly opened. Farmers are preparing their ground, and quite a number of acres will be put in between now and April 1, while during April a very considerable acreage will be planted.

The sugar company has issued its contracts, and they are now ready for the farmer's signature. It is very important that all parties intending to raise beets this season notify the company at once of the number of acres they desire to cultivate, and secure a contract. It is the intention of the factory to provide for at least 3500 acres.

The farmers are given their option of two styles of contract—either the flat price or sliding scale. Under the former, the company agrees to pay \$4 per ton for all beets delivered on board the cars at any station on the line of the Pecos Valley Railway, having not less than 12 per cent. sugar to the weight of the beet and a purity coefficient of 80. Should any of the beets fall below this standard, the company reserves the right to take the low grade beets at the following scale of prices: For all beets containing not less than 11 per cent. of sugar and 75 purity, \$3 per ton of 2000 pounds; for all beets containing not less than 10 per cent. of sugar and 70 purity, \$2.50 per ton. For beets having less than a purity coefficient of 80 per cent. a deduction of 25 cents for each two degrees below 80 per cent. will be made. Should any of the beets delivered be subject to a tare of over 15 per cent. the company will deduct an amount equal to the sum of 50 cents per ton for such excess of tare. The company agrees to pay the freight on all tare up to and including 15 per cent., and the beet grower to be charged the freight for the extra tare over 15 per cent. at the rate of 50 cents per ton.

In the sliding scale contract the company agrees to pay \$4 per ton for beets containing 14 per cent. of sugar to the weight of the beet, and an additional 25 cents per ton for each and every per cent. of sugar above 14 per cent. up to and including 17 per cent., as determined by the test of each load of beets delivered. A reduction of 25 cents per ton will be made for each and every per cent. of sugar below 14 down to 12 per cent. The company reserves the right to reject any and all beets containing less than 12 per cent. of sugar with a purity coefficient of 80. The stipulations regarding tare are the same as in the flat price contract.

In its instructions to the farmers, the factory suggests that they plant as early as possible. It says that "to raise a large tonnage of beets of good quality it is absolutely necessary to have a full stand, therefore you should plough deeply and prepare your soil well. You can not plant too much seed. Avoid irrigating

during hot sun; irrigate in the evening and during the night. Do not permit weeds to grow among the beets."

Now that the contracts have been issued; there will be no cessation of work, but every effort made for a successful growing season, with its attendant result—a successful campaign.

The sugar beet season of 1898 in the Pecos Valley is on.—*Pecos Valley Argus, March 11.*

Sugar Beets in South Dakota.

The evening session of the Farmers' Institute was well attended. The fact that Prof. James H. Shepard, of the Brookings Agricultural College, would give a lecture on the sugar beet was sufficient to draw out a large number of the business men of the city, as well as to retain in the city a number of the farmers who were in attendance upon the morning and afternoon sessions. Those who were there heard one of the most interesting lectures ever delivered in the city.

At 8 o'clock Porter P. Peck called the meeting to order and the crowd was agreeably entertained by a male quartette which sang a selection and responded to an encore. Following this Chairman Peck introduced Prof. James H. Shepard, who gave his lecture on the "Sugar Beet." After explaining that through the delay of a professor in South Carolina the necessary slides for the illustrated lecture had not been sent to him, the speaker said that diversified farming was the salvation of a country and he intended to show that by means of the sugar beet the farmers of the State would be able to prove the statement. It was sometimes hard to introduce new ideas, as farmers usually did not take kindly to radical departures, but in this State the creameries had paved the way. It was necessary in order to interest the farmer in the cultivation of the sugar beet to secure the factory first, or at least have assurances that an effort would be made to secure one. This done and half the battle was won.

Alluding to the extent of the sugar beet business, the speaker showed an interesting fact, namely, that more than \$100,000,000 in gold was sent out of the United States each year for sugar. Germany, which produced the greatest amount of beet sugar, got the bulk of the money, and this amount could just as well be saved to the people of the United States if the farmers and the business men would take the matter up. To know the immensity of the business the speaker stated that it would take five hundred factories the size of the Norfolk plant to supply the demand for sugar in this country. The United States is the best customer which Germany has, and on account of the bounty which the German government has put on the beet sugar, it is possible to purchase sugar cheaper on the markets of the United States than right in the markets of Germany itself.

Taking up the subject of South Dakota's prospects in the line of the cultivation of the sugar beet, the speaker showed that this State was peculiarly adapted by soil and climate to produce the greatest results. He had sent out seed to people over the State and had made

tests from samples sent in by the farmers and some sent in by the women, who had taken a wonderful interest in the matter. A most gratifying result had been obtained. From samples received from twenty-four farmers in Minnehaha county, an average per cent. of 16.04 sugar had been obtained. All the newspapers and beet sugar journals of the East teemed with the news that South Dakota was pre-eminently the best State for the cultivation of the sugar beet of any in the Union. Prof. Shepard then spoke of the results obtained by chemical analysis of samples raised during the season of 1897. Thirty-seven samples received had been rejected because the growers violated instructions to a fatal extent. The following results were secured from the State at large expressed in terms of per cent. sugar in the juice: Sixty-eight samples gave between 12 and 14 per cent.; 127 samples, between 14 and 16 per cent.; 99 samples between 16 and 18 per cent.; 28 samples between 18 and 20 per cent.; 10 samples between 20 and 22 per cent.; 7 samples between 22 and 24 per cent.

The speaker then showed the following benefits which the farmers of the State would receive from the introduction of the sugar beet:

First—Because he would have a new crop for rotation. That is to say by alternating crops of beets with wheat and other crops. Land did much better under such conditions.

Second—Because he will be compelled to adopt new methods of cultivation. The speaker then told how cultivation of the sugar beet was accomplished. The ground has to be ploughed to the depth of fourteen inches. This could be accomplished by going through with an ordinary plow to the depth of eight inches, and then subsoiling the land to the depth of six inches. Or with a plow which was manufactured especially for that purpose the entire fourteen inches could be turned over at one time. It was necessary that the beets be given plenty of room to grow under ground. If shallow ploughing were done the tops of the beets stuck out above the ground and were worthless. The expense would be a little greater, but the amount of wheat which this ground would yield a year later would pay for all extra expense.

Third—Because he would have an additional source of green feed for his cattle, a matter of vital importance to the farmers who were engaged in the dairying business. The tops of the beets and the leaves were cut off and could be used.

Fourth—Because it would cause an increase in the land values, decrease the size of farms, which meant an additional population of farmers, something which the country needed greatly.

Fifth—The dairy interest would receive an impetus from the introduction of the sugar beet as indicated above.

Sixth—Because it will give a new crop to the farmer which can be sold for cash. A sugar-beet crop was surer than any, wheat not excepted. About twenty tons could be grown to the acre. Beets containing 12 per cent. sugar readily brought \$4, while those going at a higher per cent. brought \$4.75 to \$5.

The speaker illustrated the profit in the business in the following manner: Say that an acre of ground produced fifteen tons of beets which brought \$4; this would equal \$60. After deducting all expense—seeds, cultivation, harvesting and drawing to market—a net profit of \$30 would remain. This had been carefully figured out by men practically engaged in the business.

In answer to the question which would naturally arise in every farmer's mind as to what effect the beets would have in exhausting the ground, the speaker showed that by leaving the tops and leaves on the ground most of the chemical properties necessary to fertilization would return again to the earth. The same result could be obtained by feeding to cattle and distributing the manure.

Cultivation of sugar beets was the subject next handled by Professor Shepard. Ploughing should be done in the fall. Great attention should be given to the preparation of the seed bed, which must be firm. Leaving the ground in the rough condition after ploughing so that the snows and rains of the fall and winter might soak up the soil, as soon as spring opened the land should be thoroughly dragged and rolled until it was packed solid. The seed was sown with either a horse or hand drill, to a depth of one-half to one and one-half inches. Rows to be about twenty-two inches apart. Last week in April or first week in May the most suitable time for planting. When the plants had about four leaves thin out with hoe and afterward go over by hand and remove the plants down to one in each place. Weeds must be kept out until about the middle of July, when the leaves had grown large enough to shade the ground. It takes about five months for the beet to mature. In the fall they are pulled, the necks and tops cut off and taken to the factory, where they are stacked up and kept. Manufacturers claim that cold does not affect the sugar producing qualities of the beet. However, it was best for farmers to take the beets to market at once to prevent shrinkage. In response to a request the speaker told how the beets were converted into sugar at the factory.

Major Bailey, representing the industrial department of the Illinois Central Railroad, then gave a brief address endorsing what Professor Shepard had said, and urging the farmers to take hold with the Business Men's League and sign a guarantee to furnish at least 5000 acres of beets to a factory. If they would take hold he had no doubt that a factory could be secured, and the Central Railroad stood ready to assist the town and the farmers of the State in every way possible.—*Sioux Falls (South Dakota) Press.*

Mr. H. C. Barnett, of Shadyside plantation, on Bayou Teche, was a guest at the St. Charles Hotel on Sunday last.

Mr. H. C. Boas, of Iberia parish, was one of the Sunday arrivals at the Royal. Mr. Boas is a prominent and successful planter.

Mr. E. P. Munson, of Assumption parish, was in the city on a visit a few days ago, and during his stay was the guest of the St. Charles Hotel.

The Shaving of Stubble.

[Discussion by the Louisiana Sugar Planters' Association, at their regular monthly meeting held on Thursday, March 10, 1898.]

Judge Emile Rost in the chair.

Gentlemen—The subject selected for discussion this evening is that of stubble shaving. The chair will state that there are two papers on this subject, which will be read to the association. One is by Mr. John Dymond and the other is by Mr. Mallon. After that a discussion of these papers will follow, and after the discussion is over the chair will invite your attention to the new system of light which is shown here this evening by the lamp overhead, and which belongs to the Kiteon Hydro-Carbon Light Company. After the discussion of the regular subject is over, Mr. Rickey will explain to the members of this association how it is constructed and operated. Mr. Dymond will now read his paper.

Hon. John Dymond—When I consented, or rather when I suggested this subject as an appropriate one for discussion this evening, I thought there would be several papers prepared on the subject; but as I found this not to be the case, I prepared the one I will read here to-night. It was written rather hurriedly, and I can hardly say I have done justice to the subject—I only completed it within the last thirty minutes, and I will read it in a somewhat apologetic manner to account for the possible crudeness of the paper.

At the conclusion of the reading of Mr. Dymond's paper, it was moved that the thanks of the association be tendered him and that it be published with the proceedings.

The secretary followed with the paper prepared by Mr. Mallon, on which similar action was taken.

Both papers appear in our last issue.

The Chairman—The subject is now open for discussion.

Hon. John Dymond—With a view of opening the discussion I would say that there is one point in Mr. Mallon's paper which I omitted in mine on account of lack of time. And that is his light shaving. It is certainly a success—stubble shaving is, in a way; and it is only with this sharp shaver that it is done; and it serves also to remove the winter grass. The large amount of work done on stubble arises from the fact that it is threatened with wet rot by the presence of the winter grasses that accumulate after the crop is harvested; and this grass should be taken off as lightly or as deeply as desired; and if it be not done it will get down in the interstices between the stalks of the cane. These grasses will accumulate and remain there throughout the season. There is one possible disadvantage, and that is that the whole of the grass roots can not be cut out; but you can get a fresh start about the 1st of March, completely extirpating it that time by shaving one, two or three inches deep—just deep enough to give a clean top—shaving just as little as possible, still leaving the cane ridge on top clean of grass.

The Chairman—What do you call deep shaving?

Mr. Dymond—If the ridge is about twelve inches above the mother cane, deep shaving is to take from six to seven inches. Some people would say even eight inches—say six inches of the top earth, and cut off half. It would look as though you had ruined the crop; yet if the season is favorable and the conditions good, the six inches that we leave down next to the mother cane, having all good eyes, will produce bountifully. It seems rather dangerous, and some of those who are conservative don't like to adopt it. We have a member present from the parish of Ascension who has been shaving stubble since he was a boy; and I am sure he can tell us a great deal about it—I refer to Col. Richard McCall.

Col. Richard McCall—As far as I know anything about it, it is only a question of

economy. Give me the labor and I will never shave stubble. Black lands I do not shave now. We find it better not to shave black lands at all; on sandy land I am following in the footsteps of two gentlemen who I believe were amongst the best planters in the State—Mr. James Teller and Mr. Coffield. Mr. Teller never shaved stubble in his life, he was a man of some fifty or sixty years' experience; he never used a stubble shaver except to destroy his stubble when he expected to put in corn. Mr. Dymond talks about going down six inches; there is some on the table there that are only six inches long themselves, and if you take off six inches you take all the stubble off, but if a man will take, say, three inches from the top in sandy lands, he facilitates his work; but that strikes me as being the only thing that can be said in favor of shaving. I have shaved land and I have dug sandy land side by side. I have found digging just as good as shaving, and costing a very little more. I prefer not to cut high sprouts off, if I can keep them. I prefer to have all deep eyes if I can get them; but we can not economize with work when the season comes and we are forced to shave to be able to get ahead of the work. For instance, take my own case. We have 400 acres of stubble. Now I have all the grass off that in the black land where we dug, but we dig the sandy land, too. We dig every one of our stubbles even after shaving it; run the digger over it and take the dirt out. One of the reasons—coming back to the black land—one of the reasons why the shaving of black lands is of no use is because you have to remove from amongst the cane the pieces of earth which seem to be absolutely impenetrable to the roots of the small cane. Therefore shaving won't help you one bit; and you might just as well run the digger and dig it out with the grubbing hoe at once. Very few people have land where the land is so even that you can set a shaver and have it run exactly right. The Mallon shaver has a great many advantages, but one serious disadvantage, and that is its cost. An ordinary shaver costs \$20, but the Mallon shaver, \$80; and when you are running six or eight it makes a good deal of difference between the two. As I said before, shaving stubble is simply a question of economy—it is not a question of making any more cane. Mr. Teller always said that by shaving you lost a certain amount of tonnage; he claimed that you always got more by digging than you did by shaving; that shaving made green cane and that digging stubble produced a ripe cane. Now, the opinion of a man who had as much experience as Mr. Teller, it strikes me, is very worthy of consideration. It is very worthy of trying, any way.

The Chairman—I would like to ask Col. McCall a question in reference to his statement that by running the digger after shaving—running a sufficient number of times—one may be able to do without hoeing.

Hon. Richard McCall—It can be done, and I know people who have done it; but it requires deep shaving. They shave deeply and get rid of the grass and roots; that is one thing. I doubt very much whether anybody ever puts dirt to the cane—I seldom do it—without cleaning the grass off, and digging the dirt away. I will go further, and say my firm belief is to dig stubble; and when you do that, with good work, you will get from two to three tons more—my figure is three tons per acre, which means a great deal.

Mr. Dymond—I would like to call attention to one fact brought out by Mr. McCall. That is this: In the paper I read I adverted to some of the difficulties he is now raising. Black lands always start the ratoons, the stubble crop, earlier in the season, and unless the black lands are shaved early it is in expedient to shave at all. While they might yield a poor crop they always look well in March and April. The color of the land seems to promote the warmth of the soil, and the result is that

black lands always look more forward than others in March and April. That is the first point. When the crop does occur in that way when the canes are eight, ten or twelve inches high if they are cut off it looks as though either the laceration or amputation at that time was a dangerous thing. Then, secondly, in these black lands the canes never are deeply planted. It is difficult to prepare the lands well for planting as deep as sandy lands. The result is one has a shallow planted crop and not much depth of the mother cane in the stiff lands; planters are apt to shave too deeply and practically shave the crop out of the ground. Mr. Mann, from the parish of Plaquemine, has also some experience with stubble shaving.

Mr. Mann—You must excuse me, gentlemen. I came here merely for information and instruction on the subject, because I have perhaps shaved stubble very little. A number of years ago I did some shaving and for my part I have never seen much difference. I made fair crops with and without shaving during a number of years. Lately, the plantation I am handling is composed entirely of stiff lands, and for my part I would hate very much to cut my strong, vigorous sprouts right now. I tell you this, as I was questioned, but as I said I came here for information and instruction on this very subject.

Col. G. G. Zenor—Mr. President, this question was so thoroughly discussed about four or five years ago that I don't think we could do much more. Mr. Dymond states there were some things he left out of his paper for the lack of time. I don't know how much time he would require to get as short an article as Mr. Mallon's. It seems to me this is a question for the different localities and conditions to decide. A people in one locality have tested it, and found that it was probably advantageous to shave, while in other localities it was found disadvantageous; and, of course, they have to be controlled to a certain extent by their own natural observation on the plantation where they are working. Now, there is no doubt, I believe, they will all agree as to shaving the stubble as Mr. Dymond has it in his paper; and, as Mr. McCall remarked, there is a saving of labor by running these machines so as to take off the surface—cleaning the crop of the grass and weeds that accumulate in the winter season; but I don't myself believe in shaving when our stubble is already sufficiently developed and coming forth with the promise of a crop of sufficient stand. This is the way it presents itself to me. Now, we all realize that our stubble crops are invariably much better when we have what is called a warm winter, and we have all remarked that if we did not have a winter season here, and that cutting our stubbles injures them seriously, that we would make as magnificent crops as are made anywhere; but there is so much dependent upon the conditions of the season that this stubble crop has to pass through from the time we harvest the cane until spring that we have to be controlled, as I remarked before, by the circumstances and conditions that surround us, and you can not, I think, lay down any fixed rule for this character of work.

Hon. Walter O'Neill—Mr. Dymond's paper and his subsequent remarks so fully give my own views—so fully cover my own experience—that I could add nothing to what he has said. There are some seasons when you can shave advantageously and others when you do not need to shave. Take a season like this. There is no fixed rule about shaving. I usually examine the stubble before I run the shaver over it. If the top eyes are bad, eyes that can not germinate; if the stubble is injured by cold weather, the tops injured two or three eyes below, then I shave. I am guided more by the condition of the stubble than by any other rule; but Mr. Dymond's paper just about covers all my experience, and I could add nothing more.

Mr. L. M. Soniat—Gentlemen, I shave my

stubble all the time, just as a matter of habit, as it were. We never stop—just go right along—and I have seen no loss by it. We generally get good results from the stubble—twenty-two to twenty-four tons. It is true that we have very rich land, and it is well manured; but I never leave any without shaving. I do sometimes try the experiment. Cane growing about a foot high; we left a few rows, but did not notice any difference.

Mr. O'Neill—Do you dig thoroughly with hoes after shaving?

Mr. Soniat—We dig first and then run the hoes afterward. We take some dirt off with the hoe—not deep, though.

Mr. Dymond—This matter of stand that Colonel Zenor brought up in the first part of this discussion is quite a serious matter, and Mr. O'Neill says he would not shave his stubble this season. This has been a favorable winter, and yet we have had so many freezes that the canes in the fields do not show much leaf; and therefore it looks as though the first stubbles might have been shaved this season. The fact of the matter is, and in this some of you will disagree, that all canes out in the fields are practically, or two-thirds of them, are from the bottom eyes, and unless these canes are large enough to be jointed, no injury will result even if the whole top is shaved, consequently you don't get any eyes in the process of germination. The eyes start in the fall; it seems to me the vitality of the plant lies in the bottom. When cut off, the whole root system displays its strength by the development of the lower eyes. The October canes, the first cut—in these they are the bottom eyes that start up. Because of this canes cut in October or early in November, never make as good ratoons as those cut later. So the canes we find in the fields now are from the bottom eyes—not always, but as a rule. Unless not large enough to be jointed, they will rot back and destroy that point of germination if frozen down. It would look as though stubble shaving would be not particularly detrimental to them, unless the question of exhausted vitality came in to play; unless because of the interference with the life of this plant by cutting so much of its upper supply of food. Of course, these are rather scientific questions, and can be studied so much more and so much better at the sugar experiment station. We will leave that to Dr. Stubbs.

Sprouts, as a rule, that are dead, are from the bottom of the plant; therefore stubble shaving evidently cuts off the eyes on the top; does not cut the eyes that had germinated. On the other hand, in a field where there is considerable water—low lands—the eyes that are nearest the root may be killed; all the middle eyes may be preserved, and top eyes may be killed by frost. Crops that come from the middle eyes in low lands are always poor crops. Two-thirds or three-fourths of the ratoons are from the extreme bottom of the plant; therefore stubble shaving does not cut off the germinating eyes. While one live eye is enough in any one stubble, two live eyes are twice enough, if they were sure to live throughout the season. Cutting off eyes is not detrimental of itself. A man that has both legs amputated is liable to die from the shock; so may be with our stubbles.

The Chairman—You have heard the practical side of the question of what has been done, and what has been the custom, and you have heard of the work that has been done. Now we would like to get to the very core of this question and have the views of Professor Stubbs—know the reasons why this has been done.

Professor Stubbs—I have had little experience with shaving stubble from the fact that the first two or three experiments demonstrated that it injured my stand to such an extent as to vitiate my experiments; therefore I discontinued it. In a field of cane of 100 acres, the loss of a few stubble now and then, either on account of the dullness of the knife, or, as

Mr. Dymond expressed it just now, by cutting off the living eyes, and leaving a few dead ones, is immaterial; but in an experiment station where every stubble counts in the results, we can not use any methods that will vitiate our stand; I have therefore had very little experience on the line of shaving stubble. I am discontinuing stubble digging with a stubble digger, because when the stubble digger is used it will occasionally pull up a stubble.

There are two sides to be considered. The first is the scientific side, the life history of the cane; the second is the economical or industrial side that concerns the sugar planter in his work. There are some differences, but at the same time they may be made harmonious by a close inspection of them both. If I were a planter I should most assuredly use stubble diggers, and, perhaps, sometimes stubble shavers. At the experiment station we can not use either for reasons which I just now gave. If you will examine the cane closely you will find that it consists of nodes and internodes, and at the nodes on the alternate side of the stalk are eyes. These eyes are the seeds of the cane. The red stubble is nothing more nor less than the prolongation in the stalk to the mother stalk at the bottom, or to the mother of the cane, which may be plant cane, or the mother stalk, which may be stubble. Now, these joints grow shorter and shorter as you descend, with an eye at every joint; and if you will examine this stubble there before you, you will find reason for Colonel O'Neil's statement that he would not shave this year. The stubbles are in good condition, ready to sprout. Now, Mr. Dymond's statement that the lower eye—that the first shoot is from the lower eye, has some foundation. I will give you this reason. The cane is a plant that may lie dormant for a long time and ultimately come out, and perhaps do just as well as though it had sprung directly from the stalk with fresh vigor. This is a fact that I want to announce to you all because I have studied it thoroughly. As is frequently the case, plant cane in the spring of the year is covered so deeply that the eyes, or a good many of them, will not germinate. A few of them germinate, and getting the start they only grow. Pull the dirt off it, dig next fall or next spring, and you will find a good many eyes that have survived twelve months. When the cane shoots from the ground the very first thing it does is to send out little rootlets of its own. Simultaneously canes shoot from the little buds that are formed at the bottom.

I will here say that cane continues to sucker; it suckers, all cane, from the time it starts, though you cut it down. When you go to examine stubble you will find a great many eyes shoot out from the bottom, not because it is the disposition of these eyes to sprout before the others, but because they continue to grow where they had previously started. A personal examination of the cane, a personal knowledge of your soil, are things to be examined before you decide whether to shave the stubble or not. In the black lands that Mr. McCall speaks of I opine that the reason of it is that the lower eyes are killed by the cold and the wet, and down in these black soils these eyes are either killed or so seriously damaged that a deep shaving, as a rule, destroys the cane; therefore, if you have such conditions as that and shave as deeply as Mr. Dymond says, you unquestionably injure the stubble.

If, on the other hand, you have a severe winter, with two or three eyes killed, I certainly think it advisable to shave. Why? Because you have the lower eyes in such condition, as far as sunshine and air are concerned, as to spring immediately into existence. If, on the other hand, we get only a few eyes, I imagine that with some good eyes at the lower part of the stalk, and killed at the top, that the few eyes left fall to give a good crop of cane, not by virtue of their position.

but by virtue of the fact that the stalk has been so injured that there is little or no sustenance in that stalk to allow these buds in the centre of the stalk to make a good showing.

In other words, if you will take that stalk up and examine it you will find a lot of little dots or points. Now, these little dots or points are nothing more or less than rudimentary roots. As soon as your cane is planted and wet these roots come out, and being below the ground, they become the true roots of the plant. As you pile dirt up six or eight inches while the cane is growing, you will find for weeks that the joints that have just been covered will shoot out these roots, which become the true roots of the cane. These eyes, therefore, live upon that stalk. When you cut down six or eight inches of the stalk and leave only three or four down below you have diminished the food supply to that extent; therefore it is not advisable to cut too deeply.

In conclusion, as a matter of economy to the planter, it is well to shave under the conditions named, but you should, before shaving, examine well the condition of the stubble to see that the bottom eyes are not destroyed, so to speak, as sometimes occurs. I believe, in black lands, and secondly, whether the eye on the top is killed by cold weather. If the eye on the top is killed by cold weather, it is certainly not advisable to shave, because you immediately remove that dead matter. Cutting that off removes fermentation, exposing those eyes that are still alive to the action of the sunlight and atmosphere and getting the direct heat of the sun on them; hence, they germinate more quickly and make a better stand. I do not know that I can add anything to what I have said, but the question of shaving is one where a great deal of judgment can be exercised.

The Chairman—From your experience do you consider that there is any difference in canes from the lower eye of the root or from those higher up?

Professor Stubbs—No, sir; I do not. I will say to Mr. Dymond that to-day I made an examination not thinking of this meeting. We had one variety of cane that we have left only in the stubble. We were ploughing it up. We took up the row, planting it so as not to lose the variety, and thus it passed under inspection, and I found by no means a majority of them with the eye like that one sprouted at the bottom. It is possible that the eye started early last fall, or perhaps during the summer, and was probably stopped and checked in its growth by being crowded by dirt or smothered by a cane close to it. There is a stubble where there is no eye sprouted. Every eye on that is nearly as prominent.

Mr. Richard McCall—That is not a cane but a sucker.

Professor Stubbs—That is right, sir; take that one; there is one that has been all out practically. Here is another one that is nearly out. I don't think—I believe you will find a great many coming from the bottom that have simply been dormant during the winter and fall by being crowded, and when you remove them they of course come out earlier, having the start.

The Chairman—I would ask whether, in your opinion, the bottom eyes have more vigor?

Professor Stubbs—No, sir; on the contrary, I think it is perfectly immaterial. I will state one thing that I overlooked. Where you keep stubble three or four years it is of great benefit—that is, keep your stubble down in the row. In other words, we have three or four years' stubble which we have never shaved nor never dug, and we have raised our crop each year. The roots grow a couple of inches higher each year. We have carried the stubble four or five years, while I find that by piling up the dirt, we make very high rows and have difficulty in getting dirt to our cane; but that is necessary where you carry it two or three years; but one or two years you will not

meet with this difficulty. I do not think it makes any difference whatever—in other words, we have tried before by our experiments in planting cane to determine under what conditions, what particular cane and what eyes will germinate quickest; and I say now it is simply a question of environment. In my opinion, good, healthy canes, under healthy conditions, will germinate, and some under disadvantageous circumstances will not germinate; and in laying stalk cane down four feet in length, with one end probably two or three inches lower than the other end, the other end will get the start and germinate better, notwithstanding every eye is good and the vigor of the eyes being the same. Perhaps I might remark that, but with good sunlight, the eyes and buds under the same conditions, you may almost assert positively that they will start equally, sprout, and no preference along the cane from the extreme tip to the extreme top. If you will take a cane lying this way, you will find, when the stubble comes up, every eye will germinate, whether at the lower end or above. Dr.—I've forgotten his name—

Mr. Dymond—Reynose.

Professor Stubbs—Dr. Reynose, the celebrated scientist, who investigated sugar cane, first called my attention to it, and said this was the proper way; to dig up stubble and lay it flat in the row, because he said there were so many eyes in a given space, therefore digging and replanting was not different from planting that piece of stubble and the cane. Right in this particular instance, we have got so many eyes on these stubbles that it would be difficult for anyone to tell whether you should shave or should not shave in the course of the year from your stand. I want to say one thing to you gentlemen now; I want to impress on you. If any one will dig first-class stubble this year, and count it, you will find two or three times as much cane to the running 100 feet as you will gather at the harvest next year; therefore, you can destroy half those eyes and not notice the least difference. We have taken quite a number—in fact, every year since I have been interested in sugar cane culture—we have counted cane stubble and plant—counted every stalk three times. For instance, there are now more canes coming up than you will carry to the house at the end of the year. Therefore, they are destroyed while growing.

The Chairman—What you state about the difference in quantity of cane in July and harvest time applies as well to plant cane as to stubble?

Professor Stubbs—Yes, sir. Plant cane coming up, as it does in the fall—if we can get our stand of plant cane—one for each foot—because each cane will sucker from two to four, and sometimes more during the year; but three to four canes harvested to the foot at the end of the season makes an excellent crop.

Mr. Dymond—On a cane that is cut in November—the stalk turns red at the end—has a red film over it. Is it wise to cut that kind of cane in February or March, and take the chances of another film? Is the old formation progressive, or does it hold the cane dormant?

Professor Stubbs—I will have to refer you to a book recently printed on sugar cane in which a chapter on that subject has been given. This formation, or rather mould, is known as bread, and is not of the character remarked to you just now. If you will take a severe freeze on your stalk, you will find no power on earth to hold that cane two weeks afterward. In other words, just after a freeze the fermentation begins, a fermentation takes place, and no sugar chemist can handle that in the sugar house. The same thing takes place, so far as the cane is concerned, when we have a freeze that freezes the top of the stalk here that immediately enters the stalk; and if you do not arrest it by cutting off, it will ultimately seek the cane and become in before the stalk of cane is completely decayed. Another thing I want to say: Whenever we have a freeze

that kills a bud and does not split the stalk, we have found that a good way to arrest it immediately is to go the next morning and cut down below the freeze. That immediately removes the fermentation, which has been introduced in the top before it is introduced into the stalk. The principle in cutting is not a question of the ferment descending, and in the course of a week or two, cut a foot or two, and bore the cane off at the centre—it will keep just as well, if not quite as well. We had arrested the other part and then in December, and did not harvest that until last January. If you let that cane remain until spring every eye will germinate; there is no doubt about it.

Mr. O'Neil—After you dig your stubble do you throw back?

Professor Stubbs—I didn't dig at all. I simply take hoes and take the grass out. Some years ago I allowed my overseer and the darkies to dig until it trembled in the wind. I soon came to the conclusion that it was perfectly absurd, and never have dug since. I simply take ordinary weeding hoes, and leave a little ridge—about ten inches, perhaps—just dig a little dirt from the side of the cane.

Colonel Zenor—You alluded to digging stubble out and, say, first plant cane. Now, from the fact that the eyes are so close, so very close together on this stubble, don't you think that if these eyes germinate and come up there would hardly be sufficient nutriment in these stubbles to sustain them?

Professor Stubbs—If it did not, some would die and others would take their place.

Colonel Zenor—I alluded to that from the fact that I have known cane in our dry weather that was planted were short; what you would call ordinary "scrub" stubble would subsequently die out, while the canes planted that were vigorous, healthy canes would seem to thrive much better. I infer from this that a certain amount of nutriment in the mother cane is necessary to sustain that cane under adverse conditions. If that stubble was planted, as you perhaps have planted cane, do you think it better to plant pretty closely as ordinarily do plant cane, or plant rather apart? That came to me from the fact that on one occasion when I visited the farm you showed me some cane planted two feet apart; you cut up other pieces and planted closely. You could not tell but what it was solid planted. I don't know what results were obtained, but from all appearance it indicated that it would give as much tonnage as perhaps any other.

Professor Stubbs—I will answer that question. If you take perfect pains in planting cane and use no defective eyes on the cane, one stalk without a lap would be of the greatest abundance in seed to plant, because you have no cane that has an eye at least every six inches. It is a serious thing we have demonstrated by transplanting our cane like sweet potatoes. When they come up we would measure them. They would sprout whether planted apart six, twelve and eighteen inches. Those of six inches that were down four or five years always gave a larger stand and more suckering goes on. By transplanting cane six inches probably we have two or three times more cane than we can carry to the harvest. One stalk regularly distributed is the greatest abundance for plant cane, spring of the year. In answering this other question, I don't know that I can illustrate it better than by quoting Mrs. Jackson's remarks after her husband had been elected President and office-seekers from all over the country flocked to Washington for office. Some one asked Mrs. Jackson what was the General going to do if there were more applicants than there were offices. Her reply, which was full of meaning, was: "If a sow has more pigs than she has teats, some are bound to starve." If you put this down this way, and there are more eyes upon this stalk than there is nutriment to sustain them, some are bound to suspend activity of life and die, and the

others will go on and thrive. In the plant, nature provides for that amply.

Colonel Zenor—Your remark that one stalk of cane was sufficient to produce a stand—I am glad to hear that expression from you. I have given the opinion that hundreds of thousands, even millions of dollars, have been thrown away in the State of Louisiana by putting too much cane in the ground for seed.

Professor Stubbs—The question of suckering. The question being agitated was this: whether the stubble came from the suckers or from the original cane, and that question I wanted to determine, so I cut down these stalks in February, and from one single stalk that I had I counted forty-five suckers. In other words, wherever I cut off a little node would form, and in some instances it was just like grass springing up, and that year from that one stalk of cane I think we took a crop of thirty odd tons, from which not a single sucker had been allowed to grow; while three-fourths of the other suckers died during the year, the other one-quarter came to maturity and gave somewhere about thirty tons.

Mr. Geo. E. Mann—I can not help corroborating Dr. Stubbs in regard to that plant of one stalk of cane. I have repeatedly done that in a small acreage, but last year I planted about seventy-five acres in the same manner and the balance of the crop two stalks. There was no difference. I had a most magnificent stand from the same.

The Chairman—Did you find any difference in the tonnage?

Mr. Mann—I can not say if there was any difference in the tonnage—the tonnage was very large, indeed.

Dr. Stubbs—If you will read my bulletins—from one stalk, two, three and four, and you will find where I planted four that I got more original sprouts from this cane than I carried to the harvest. In other words, they injured my crop by being too thick a stand, and as we all know suckering is a natural function of the cane and must be gone through with in order to give us good cane. Four stalks will give many eyes and you can not possibly have room for all to come up. I would not recommend the planting of over two running stalks without a lap.

Col. Richard McCall—How often is cane good enough to plant one cane?

Dr. Stubbs—A little exercise of care. You will find in some of my bulletins the cost of the State of Louisiana in planting four, two and one stalk; and you will remember when planting two stalks that it is equivalent to four tons to the acre. We plant in Louisiana probably 350,000, and probably 350,000 this year in cane, of which, perhaps, nearly one-half is plant cane—let us say 150,000; multiply that by four and we have 600,000 tons of cane that was in excess, and at \$4 a ton, or \$3 per ton, it makes nearly \$2,000,000; that I consider thrown away in the planting of cane. That is my opinion; and, therefore, I think it would be cheaper, much cheaper, to use extra efforts in trying to preserve cane—say plant two stalks and use the other two stalks in the mill.

Colonel Zenor—What are your ideas about planting should it be in the fall or spring?

Dr. Stubbs—The greatest benefit is from planting in the fall.

Colonel Zenor—In our short seasons here in Louisiana, in my opinion, and from my experience, the only way to make good, large tonnage, and rich in sugar, or as much sugar as we can get, is to force the cane out of the ground as early as possible in the spring. Push it for all it is worth from then until harvest; and the plant coming up suckers early; and we nearly always get better tonnage and sugar content in the fall. Now, I know that a good many planters do not have that same experience.

There being no further discussion on the subject, the next matter coming before the association was the subject for discussion at the April meeting. As nothing was suggested, it was left to the chair to choose a topic.

Talmage on the Rice Market.

In the early part of the weekly period covered in our report there was the suspicion of a lull—dense dullness prevailing for a couple of days; it was followed, however, by a much enlarged activity which has more than compensated for the temporary falling away. The demand has been pretty evenly distributed over the various styles of foreign, high-grade Java, slightly in the lead. The first invoice "new crop" Japan is at hand and the turnout disappointing, being in nowise preferable to recent offerings in old. This outcome is in accord with advices and advance types, but in spite of these there has been a vague and optimistic hope that somehow or other the actual delivery might prove better. If succeeding shipments are of similar character this style will cut a diminishing figure in the demand of the current season and its place probably be filled by the new crop Java, which promises to be of high order and much more reasonable in price. Advices from the South note steady movement at all points, which, with limited holdings far short of past two years, keeps prices taut. Generally speaking, values are now on a relative parity with foreign, but there are those who will have domestic at any price, hence there is fair probability of early advance. Cables from English and continental markets show lively conditions—sharp competition for limited offerings. Most of the millers are indisposed to sell against the future lest they lose a share in the "boom" expected when the season opens April-May. With an empty market and the universal disposition to flirt with "new" beauties, it is evident the early crop will command very full values. Burmah cables note an enormous demand; receipts being taken up as fast as they appear, which prevents accumulation of stock and enables holders to maintain values.

Talmage, Charleston, telegraphs Carolina crop movement to date:

Receipts (cleaned) 55,055 barrels; movement steady; prices firm under light offerings.

Talmage, New Orleans, telegraphs Louisiana crop movement to date:

Receipts—(rough) inclusive of amount carried over, 493,625 sacks; last year, 555,507 sacks. Sales—Cleaned (estimated), 97,707 barrels; last year, 96,500 barrels. Market active, strong.

Reciprocity with the States.

[From the Deimerara Chronicle.]

It is satisfactory to learn that Sir Julian Pauncefote's negotiations with a view to a reciprocity treaty between the United States and the British West Indies are very near completion. The "former West Indian treaty," according to the cablegrams, is being made the basis of the new arrangement, with the necessary adaptation to the changes in the situation since it ceased to operate. We are not aware of any previous treaty between the West Indies, *qua* the West Indies, and the Washington government. There were, if we remember rightly, independent agreements with the United States on the part of British

Guiana and Barbados. These, however, had to be abrogated at the bidding of the Colonial Office, not, as is often loosely asserted, because the mother country was selfishly unwilling to allow her colonies to make the best terms for themselves that they could obtain, but simply because the treaties clashed with obligations already entered into by Great Britain with other countries. The most notable instance was the treaties with Belgium and Germany, which having been denounced in the interests of Canada, expire next July, so that an awkward obstacle in the way of an Americo-West Indian reciprocal tariff has disappeared. Had this not been the case, the imperial government would hardly have been able to establish negotiations with Washington.

It happens, however, that the road is clear to a regularly contracted treaty between these colonies and the United States, and the fact that the matter has been so heartily taken up on behalf of the West Indies by the imperial government itself effectually disposes of the ill-considered grumbling at the so-called dog-in-the-manger policy of the mother country, for which the late unsuccessful agreements often serve as a pretext. If the efforts now being made prove successful, the West Indian planters will have ample cause for gratification. It is true that the American market, owing to the operation of trusts, is a very precarious one, and it often happens, under a reciprocal agreement with America, that, to perpetrate a bull, all the reciprocity is on one side. Still there is an even chance each way, and it is well worth while making an effort to secure a preferential market. For sentimental reasons, one would naturally much prefer a reciprocal treaty with Canada, but at present the United States is clearly the market for West Indian produce.

A Reciprocity Treaty that Includes Cuba.

MADRID, February 28.—Senor Polo y Bernabe, the new Spanish Minister to the United States, has started for Gibraltar en route to New York. He is fully empowered to continue the reciprocity treaty negotiations. The government is anxious to secure firm bases for commercial and political relations with the United States before May 1.—*N. Y. Journal Commerce*.

Hawaiian Annexation Treaty.

WASHINGTON, March 11.—[Special.]—The prospect of favorable action upon the treaty for the annexation of the Hawaiian Islands seems to grow smaller with the passage of each day. The difficulty is that the more aggressive advocates of territorial extension are so absorbed in the effort to involve the United States in trouble with the Spanish government that they frankly admit that the Hawaiian matter is crowded out of sight for the moment. It is probable that no further effort will be made to consider the annexation treaty, or at any rate to reach a vote, until after the report of the Naval Board upon the disaster to the Maine in the harbor of Havana. A report by the board which indicates Spanish respon-

sibility for the disaster will cause so much excitement that the Hawaiian treaty will be indefinitely postponed pending a settlement with Spain.

Meantime the more conservative leaders of the Republican party in both houses are laying their plans for an early adjournment, which will leave the entire Cuban situation in the hands of the President for such action regarding the recognition of the belligerency or negotiations over the disaster to the Maine as the information in his hands may seem to require. There is talk of getting the two houses away from Washington early in May.

The passage of the \$50,000,000 bill has given the President ample resources for war preparations, and, while it may be necessary to reassemble Congress in case of actual war or in case the President felt that war should be formally declared, its assistance is not likely to be needed in any of the preliminaries preceding it. It is felt, on the contrary, that it will be a great gain for the peace of the country if an early adjournment of the two houses can be obtained. Speaker Reed is not in favor of the annexation of the Hawaiian Islands, and would cordially welcome a programme which involved an adjournment without action. It would relieve him of responsibility if the treaty had not been acted on by the Senate or any joint resolution passed by that body, but he is willing to assume the responsibility of adjournment with an annexation resolution pending in the House.—*N. Y. Journal of Commerce*.

A Just Estimate of Vermilion.

Dr. Derbanne, who has lived and practised in many portions of Southern Louisiana for the past forty years, himself widely known, is one who knows all this country thoroughly, and his views in regard to Vermilion, as comparing with other surrounding parishes, could not but be interesting, and his judgment reliable. Among noteworthy things expressed by this gentleman a few days ago, he said: "For men who are younger than myself I really think this immediate section of Louisiana has a fine future before it now just beginning to develop. I believe this is going to become the most important portion, or heart, of the sugar region of Louisiana, I think the Vermilion lands will support more and larger refineries than the Teche country, and I think so for this reason: Along the Teche there is but a narrow strip of land, near the river, that is sugar producing land. It is high and rich, but very soon falls off into the low swampy or marshy lands unfit for cultivation. That leaves only a little sugar land comparatively, and that, of course, is valued extremely high in proportion to its limited area. But all along the Vermilion, while near the stream the land is a rich, sandy loam, but back from that it rises in a broad expanse of alluvial prairie, black and fertile, and which produces cane heavier in weight than that grown near the river, though not quite so tall, and it is fully as valuable in sugar or more so. Now, this is fine cane land for miles out from both sides of this river. Vermilion has seemed a little slow in development, but it is bound in

the course of a few years to become a prosperous and important section of country. The sugar industry along the Teche is, of course, an enormous one, but I sincerely believe that it will become developed along the Vermilion even to greater extent and importance."—*Republican Idea*.

Free Trade in Sugar.

The Anti-Bounty League has issued a reply to Lord Farrer's leaflet, which was issued by the Cobden Club to prove that countervailing duties would be of no service to the West Indies, and that it would be a lighter burden for the English people to feed the West Indian laborers on turtle and champagne than to break down the free trade system of the United Kingdom. As a reply to this "Free trade" argument, the league quotes the following from Cobden himself: "We do not seek free trade in Corn primarily for the sake of purchasing at a cheaper money value; we require it at the natural price of the world's market." In the face of this pronouncement of the great apostle of free trade, the man whose name distinguishes the club in whose name Lord Farrer's leaflet has been circulated, it is hard to credit Lord Farrer and those who, with him, declare that countervailing duties imposed for the exclusive purpose of getting sugar sold at the "natural price" are a violation of free trade principles, with consistency or candor, for, if Cobden's idea of real free trade was correct, then they are altogether in the wrong and they have no right to promulgate their own opinions from the Cobden Club. Taking up the several points in Lord Farrer's leaflet *seriatim*, the league answers them dispassionately, logically and conclusively; and demonstrates the leaflet to be a mere handful of false conclusions based upon very reckless assertions altogether at variance with experience and fact.

To give our readers who may not have seen the leaflet or the League's reply, some idea of the poison and the antidote, we will here give a few of the assertions and the way in which they have been demolished. Lord Farrer says that protective duties are as injurious to British producers as bounties; but we do not retaliate upon protective duties. The reply is: protective duties are not as injurious to producers as bounties. Protective duties protect the foreigner in his own home markets. Bounties protect the foreigner in the British markets. He says: there is no evidence (in the commissioners' report) that the abolition of bounties would enable the West Indian producer to compete successfully either with beet sugar or with other cane sugar which is not bountified. The reply is: the evidence in the same report shows that British West Indian sugar can hold its own, as regards cost of production, against that of any other country in the world, whether it be against beet or cane; and the commissioners distinctly state that the abolition of the bounties is "the best immediate remedy" for the dangers threatening the West Indies. He says: as regards the West Indies, it is not for their true interest to encourage them to rely on legislation for the protection

of a falling industry instead of developing other resources.

To this the reply is: the West Indies can be trusted to appreciate Lord Farrer's unctuous solicitude for their true interests. It is not protection but a fair field and no favor for their staple industry which they demand. "The stability of a staple in the West Indies or elsewhere is the best guarantee for the development of subsidiary resources." We need not quote more from Lord Farrer's fallacies to show how he regards the question at issue. He knows that bounties are opposed to the principle of free trade, this being settled on the authority of Cobden himself, but because the adoption of countervailing duties might raise the price of sugar in England by a farthing or so a pound, he opposes the adoption, proposing rather that the British sugar colonies should be left to be ruined. He is one of those described by Sir Michael Hicks Beach, who approve of the smugglers' doctrine, that cheapness to the consumer, however illegitimately produced, is the only real national good. The subscribers to the smugglers' doctrine were not spared the lash in Mr. Chamberlain's recent speech, and in the *Saturday Review* (not to quote from other leading newspapers at home) we find the following comment:

"If the Cobden Club has not exhausted its mental energies in the effort to grasp the meaning of Lord Farrer's wonderful list of reasons against countervailing duties on beet sugar, we would commend to its attention the petition to Parliament signed by 8604 luckless British subjects in Guiana who are being ruined by foreign bounties. Unless relief comes speedily we are assured that the sugar industry of British colonies is doomed. When the cane sugar industry is extinct, the bounties will disappear; the countries which have given them will have a monopoly of the sugar market and the British consumer will be at their mercy. The Cobden Club, in its wisdom, does not think countervailing duties will help colonial sugar. The British Guiana petitioners, who ought to be at least as well informed as Lord Farrer on the point, say they would, and ask that they may be imposed."

The London Chamber of Commerce, the greatest commercial authority in the world, has placed it formally upon record that the foreign bounties are a violation of the true principles of free trade, and that their abolition was called for in the true interests of British commerce. With such authorities as are here alluded to, ranging from the great Cobden himself, on the side of the sugar planters, they are encouraged to sustain their demand for countervailing duties or the removal of bounties. They are asking for no benevolent or eleemosynary legislation, nor for any exceptionally favorable treatment. The tropical lands which they inhabit are better suited for the growth of the sugar cane than for any other economic plant, and as the production of sugar is their natural and legitimate industry, it is heartless insolence on the part of doctrinaires and dullards to argue that the planters have no right to expect the imperial govern-

ment to save their industry from being ruined they ought to abandon sugar and try something else. If it were the case that cane could not compete upon equal terms with the beet, then any petition for assistance from the cane planters would merit the most summary rejection, for it would be selfish and unreasonable; but no such request has gone forward, for the cane planters merely ask that the bounties be stopped and that sugars of all kinds and from all countries be admitted into the British markets on free trade basis. Nothing could be more reasonable than this request; and in spite of the efforts of the opposition, among whom are to be found persons most maliciously antagonistic to the planters, we are hopeful that its very reasonableness will lead to its being granted.—*The Argosy*.

Barbadian Factories.

The opinion of an old colonist on the real or apparent reluctance of a large section of the Barbados planters to supersede their present old-time machinery with the modern type of mill and evaporator, which we published a fortnight ago, has not been well received in the island itself, and hard things are being said of it. Our contemporary, the *Reporter*, in whose columns the agricultural interests of the colony have always found the warmest advocacy, says that it is traducing the planters to say they are opposed to the establishment of central factories, or the substitution of first-class crushing machinery for the present wind-mill process; and that the cause of their present inaction is due simply to the fact that they have not the slightest assurance that if they did furnish their estates with the best machinery, there would be any market open to them in England on fair and equal terms for high grade sugars. We are pleased to hear that the spirit of progression has at last animated the planters in the neighboring colony, and we hope our contemporary is not mistaken, that is, assuming he is speaking for the planters as a body. Our correspondent has as good an opportunity as any one could have of hearing the opinion of his brother colonists, and his statement does not bear out the *Reporter's*; and from other sources respectable and reliable, we have heard opinions corroborative of that expressed by our correspondent. Time will show which of these opinions is the correct one.

We can quite understand, however, the force of our contemporary's observation that the present is not the time to expect the planters to begin a revolution in their system of sugar-making. Things must go as they are until the market improves and gives a fair margin of profit. Our contemporary has an unworthy sneer at Demerara planters, who have provided themselves with the newest machinery and yet are in a desperate situation. We can assure our contemporary on the authority of the foremost men in the sugar industry that if the factories in this colony had not been provided with first-class machinery and the best evaporating apparatus there would have been few estates that would have survived the struggle up till now. Nothing but the excellence of the

factories has enabled Demerara men to withstand the pressure of the bounties and to keep their estates going. In Barbados the large returns of cane per acre and the cheapness of labor have to a great extent placed the estates there on a level with estates here; but if Barbados, in conjunction with her unlimited labor supply, excellent tillage and fertile soil, possessed factories of the most economic type, her position as a sugar colony would be far ahead of ours.—*Demerara Argosy*.

Sugar Beet Notes.

"Beet sowing will commence near Gilroy next week," says the *Lehi Banner* of the 1st inst.

The McClure Seed Company of Arroyo Grande, California, will plant fifty acres of sugar beets for the purpose of raising seed.

Nebraska beet growers are standing pat on the proposition not to raise beets except at the flat rate of \$4 a ton, and irrespective of congressional action regarding Hawaii. It is very probable that there will be no campaign in Nebraska this year.

Fremont, Nebraska, is striving for a beet sugar factory. A bonus of \$50,000 is asked, about two-thirds of which is in sight. The company is now contracting for beets, the farmers agreeing to an allowance in beets for five years as a bonus. The factory will be of 500-ton daily capacity.

Senator Andrews, of California, an authority on the beet sugar industry, says there will surely be twenty beet sugar factories in California alone before the year 1900. These factories will represent an aggregate capital of \$24,000,000. They will employ the product of 160,000 acres of land, and pay out every year over \$8,000,000 for labor, and at least \$8,000,000 for beets.—*Pecos Valley Argus*.

Personal.

Mr. Thomas A. Badeaux, of Thibodaux, La., was a recent visitor to New Orleans, and put up during his stay at the Commercial Hotel. Mr. L. P. Caillouet, of Houma, La., was also in the city recently, staying during his sojourn at the same popular hostelry.

Mr. Philip H. Mentz, of Franklin, La., was in the city during the past week, and registered at the Grunewald.

Col. W. H. Price, of Lafourche, was a guest at the St. Charles on Tuesday.

Mr. George Kramer, of St. Mary parish, was in the city on a visit during the past week, accompanied by Mrs. Kramer, and registered at the Cosmopolitan Hotel.

Capt. W. H. Norwood, of the Lower Coast, was a recent visitor to New Orleans. Captain Norwood registered at the Hotel Royal.

Mr. S. S. Hanaway, of New Orleans, a man widely known in mechanical and engineering circles, had charge of the machinery on the Golden Ranch plantation of Mr. John R. Gheens, in Lafourche parish, during the recent grinding season. When it is remembered that Golden Ranch has the reputation of being one of the most economically working sugar houses in the State, the importance of this position will be readily seen.

MARCH 19.

WEEKLY MARKET REPORT.

1898.

SUGAR.	March 12.	March 14.	March 15.	March 16.	March 17.	March 18.	SAME DAY LAST YEAR.	TOKE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	None.	31 1/2 @ 3 1/4	
Strict Prime	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4		27 1/2 @ 2 1/2	
Prime	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4		27 1/2 @ 2 1/2	
Fully Fair	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4		23 1/2 @ 2 1/2	
Good Fair	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4		23 1/2 @ 2 1/2	
Fair	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4		21 1/2 @ 2 1/2	
Good Common	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4		21 1/2 @ 2 1/2	
Common	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4		21 1/2 @ 2 1/2	
Inferior	23 1/2 @ 3 3/4	23 1/2 @ 3 3/4	23 1/2 @ 3 3/4	23 1/2 @ 3 3/4	23 1/2 @ 3 3/4		13 1/2 @ 2 1/2	
Centrifugal.								
Plant'n Granulated	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —	
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice White	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Off White	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ 4 1/2	3 1/2 @ 3 1/2	
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ 4 1/2	3 1/2 @ 3 1/2	
Prime Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ 4 1/2	3 1/2 @ 3 1/2	
Good Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ 4 1/2	3 1/2 @ 3 1/2	
Seconds	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice								
Strict Prime								
Good Prime								
Prime								
Good Fair								
Fair								
Good Common								
Common								
Inferior								
Centrifugal.								
Fancy	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	
Choice	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 9	
Strict Prime	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 9	
Good Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 9	
Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 7	
Good Fair	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 6	
Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 6	
Good Common	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 5	
Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	
Standard A	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.22 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 0d.	
A. & G. Beet	9s. 2 1/2 d.	9s. 2 1/2 d.	9s. 5d.	9s. 0 1/2.	9s. 0d.	9s. 0 1/2.	9s. 1 1/2 d.	

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4 1/2	— @ 4 1/2	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Mar. 9	Tons	232,479
At four ports of Great Britain to	Mar. 5	"	82,500
At Havana and Matanzas to	Mar. 9	"	98,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MARCH 18, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	247	27,802
Sold	347	28,448

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO MARCH 18, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	20,440	1,838,557
Sold	20,440	1,812,003
Received same time last year	32,785	1,151,451

MARCH 19.

WEEKLY MARKET REPORT.

1898

RICE.	Mar. 13.	Mar. 14.	Mar. 15.	Mar. 16.	Mar. 17.	Mar. 18.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	2 00 @ 4 25	2 00 @ 4 25	2 00 @ 4 25	2 00 @ 4 25	2 00 @ 4 25	2 00 @ 4 25	2 00 @ 4 25	Steady.
CLEAN, Fancy.....	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 6	
Choice.....	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	Steady.
Prime.....	4 $\frac{1}{2}$ @ 5	4 $\frac{1}{2}$ @ 5	4 $\frac{1}{2}$ @ 5	4 $\frac{1}{2}$ @ 5	4 $\frac{1}{2}$ @ 5	4 $\frac{1}{2}$ @ 5	4 $\frac{1}{2}$ @ 5	
Good.....	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	Steady.
Fair.....	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	
Ordinary.....	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	3 $\frac{1}{2}$ @ 4	Steady.
Common.....	3 $\frac{1}{2}$ @ 3 $\frac{1}{2}$	3 $\frac{1}{2}$ @ 3 $\frac{1}{2}$	3 $\frac{1}{2}$ @ 3 $\frac{1}{2}$	3 $\frac{1}{2}$ @ 3 $\frac{1}{2}$	3 $\frac{1}{2}$ @ 3 $\frac{1}{2}$	3 $\frac{1}{2}$ @ 3 $\frac{1}{2}$	3 $\frac{1}{2}$ @ 3 $\frac{1}{2}$	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Steady.
No. 2.....	1 $\frac{1}{2}$ @ 2 $\frac{1}{2}$	1 $\frac{1}{2}$ @ 2 $\frac{1}{2}$	1 $\frac{1}{2}$ @ 2	1 $\frac{1}{2}$ @ 2	1 $\frac{1}{2}$ @ 2	1 $\frac{1}{2}$ @ 2	2 @ 2 $\frac{1}{2}$	
BRAN, $\frac{1}{2}$ ton.....	9 50 @ 10 00	9 50 @ 10 00	9 50 @ 10 00	9 50 @ 10 00	9 50 @ 10 00	9 50 @ 10 00	12 00 @ —	
POLISH, $\frac{1}{2}$ ton.....	14 00 @ 15 00	14 00 @ 15 00	14 00 @ 15 00	14 00 @ 15 00	14 00 @ 15 00	14 00 @ 15 00	17 00 @ 18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAR. 18, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received.....	1,609	—
Sold.....	3,451	2,525

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO MAR.
18, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	440,452	8,301
Last year.....	874,798	7,189

Sugar.

At the end of the week the sugar market was quiet, but sufficient demand prevailed to promptly absorb all offerings. Receipts were rather large for this time of the year.

Molasses.

No open kettle goods in first hands. Centrifugals strong.

Rice.

The rice market was steady for both rough and clean at the end of the week. A fair demand prevailed, with offerings and receipts light.

Sugar Beet Seed.

The wide-awake local journals at the important beet sugar centres, Chino and Watsonville, are very properly calling attention to the fact that the strained commercial relations between Germany and the United States may endanger our supply of sugar beet seed, and that the only safeguard against trouble is to be no longer dependent on foreign seed growers. We have often pointed out the fact that, wholly apart from any interference with the trade, there are sufficient reasons why the United States should develop a home supply. California has peerless adaptations for the seed product, as was recently quite fully outlined in these columns.

Why we should be selling train loads of other seeds and buying train loads of beet seed does not appear. There is certainly no natural difficulty about growing beet seed here; all that is necessary is to employ the same exact methods in determining the quality of the mother beets and handling them as intelligently as is done abroad.

The very fact that we produce richer beets from French and German seed than are produced in those countries from the same seed should be conclusive proof that the production of seed here would tend to breed the beets to a higher standard rather than a lower one. Hav-

ing the natural conditions to reach this result, it remains but for a skilled application of scientific principles, with a reasonable amount of capital, to make a success here of this cognate branch of the sugar industry.—*Pacific Rural Press*.

California should wake up and go into the sugar industry in earnest. Utah is away ahead of them on this seed proposition. We raise beet seed here second to none in the world.—*Lehi (Utah) Banner*.

Capt. John N. Pharr, of Glenwild plantation, near Berwick, La., was in the city on a visit a few days ago, and registered at the St. Charles Hotel.

Mr. Peter Crispo was again to be found during the past rolling season at the vacuum pan on the Carroll place, which he understands how to handle in a way which speaks for itself. With him at the pan and Mr. Hy. Derby as engineer, Carroll rolled along in the best of shape.

The Cuban Sugar Crop of 1897-98.

Statement of Exports and Stocks of Sugar February 31, 1898, and same date last year.

Exports.	1897.			1898.		
	Sacks.	Hhds.	Tons.	Sacks.	Hhds.	Tons.
Havana.....	43,492	.....	.....	26,225	.....	.....
Matanzas.....	4,960	.....	.....	107,469	.....	.....
Cardenas.....	4,688	.....	.....	128,615	.....	.....
Cienfuegos.....	75,808	.....	.....	176,703	.....	.....
Sagua.....	.....	.....	.....	3,080	.....	.....
Caibarien.....	.....	.....	.....	.....	.....	.....
Guantanamo.....	.....	.....	.....	.....	.....	.....
Cuba.....	.....	.....	.....	.....	.....	.....
Manzanillo.....	200	.....	.....	.....	.....	.....
Nuevitas.....	.....	.....	.....	.....	.....	.....
Gibara.....	.....	.....	.....	.....	.....	.....
Zaza.....	.....	.....	.....	.....	.....	.....
Trinidad.....	4,630	.....	.....	19,239	.....	.....
	133,778	.....	18,514	461,831	.....	63,845
Stocks.	1897.			1898.		
	Sacks.	Hhds.	Tons.	Sacks.	Hhds.	Tons.
Havana.....	149,950	154	.....	59,961	.....	.....
Matanzas.....	62,618	.....	.....	192,662	.....	.....
Cardenas.....	85,520	.....	.....	154,888	.....	.....
Cienfuegos.....	58,442	.....	.....	108,780	.....	.....
Sagua.....	9,570	.....	.....	35,877	.....	.....
Caibarien.....	1,340	.....	.....	22,665	.....	.....
Guantanamo.....	.....	.....	.....	.....	.....	.....
Cuba.....	.....	.....	.....	.....	.....	.....
Manzanillo.....	.....	.....	.....	.....	.....	.....
Nuevitas.....	.....	.....	.....	.....	.....	.....
Gibara.....	.....	.....	.....	.....	.....	.....
Zaza.....	.....	.....	.....	.....	.....	.....
Trinidad.....	1,188	.....	.....	3,369	.....	.....
	368,578	154	51,115	578,202	.....	80,019
Local consumption, 2 months.....	.....	.....	69,629	.....	.....	143,864
	.....	.....	7,000	.....	.....	7,800
Stock of old crop, January 1.....	.....	.....	76,629	.....	.....	151,864
	.....	.....	31,960	.....	.....	1,515
Receipts to February 28 at all the ports.....	.....	.....	44,669	.....	.....	150,149

NOTE.—Bags, 810 pounds; hogsheds, 1550 pounds; tons, 2240 pounds.

Havana, February 28, 1898.

JOAQUIN GUMA.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EXPERIENCE: in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—A PLANTATION BLACKSMITH, wheelwright and carpenter; must be married and sober; to the right kind of energetic man steady employment; Milly plantation. LEBLANC & DANOS, Plaquemine, La. 3-10-98.

WANTED—A PLANTATION HOSTLER, sober and capable; must be married; steady employment to the right kind of man on Milly plantation. Address LEBLANC & DANOS, Plaquemine, La. 3-10-98.

WANTED—SUGAR CHEMIST DESIRES POSITION at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CHIEF ENGINEER and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—EXPERIENCED GERMAN AGRICULTURIST, beet sugar culture a specialty, desires position; best references. Address Box 309, Irvington, New Jersey. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ICE-HOUSE WORK; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LUKENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS SUGAR MAKER, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Piety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Comte, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR ASSISTANT MANAGER on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF AGE, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN SUGAR MAKER for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97

WANTED—A POSITION IN A PRIVATE FAMILY as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98

WANTED—POSITION BY COMPETENT DRUGGIST, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; the best of references. Address EXPERT, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 243 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98

WANTED—A POSITION AS FILTER PRESS MAN; has had many years' experience; can furnish references. Address WALTER DAILY, 2620 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT ENGINEER; can furnish good references; six years' experience. Address G. HENNINGSSEN, 518 Louisiana street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT SALESMAN and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR ASSISTANT MANAGER on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La. 1-20-98

WANTED—A POSITION AS YARDMAN OR GARDENER; can furnish reference. Address GOTTLIEB KOELLE, 1938 St. Louis street, city. 1-21-98

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBER, Central, La. 1-20-98

WANTED—A SOBER AND CAPABLE YOUNG MAN as assistant overseer on a sugar plantation. References required. MCCracken Bros., Eola La. 1-20-98

WANTED—POSITION AS STORE OR BOOK-KEEPER or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address MAX P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR MAKER; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR ASSISTANT ENGINEER; has had fourteen years' experience and can furnish first-class references. Address F. O. W., Larcaville P. O., La. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-18-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156; care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR MAKER, a crop to take off for the season of 1898; At references from former employers. GEO. H. DOUGLASS, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTATION by the year, as carpenter and wheelwright; never drink, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address P. O. BOX 422, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. Franklin street, city. 1-13-98

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address COMPETENT, Box 649, New Orleans. 1-21-97

WANTED—POSITION AS ASSISTANT MANAGER or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address E. O. W., Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address A. B., 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address C. LAURENT, Whitecastle, La. 12-28-97

WANTED—ENERGETIC AND STRICTLY SOBER young man wants position as manager of small store on plantation, on salary or commission; gilt edge reference as to ability and character. Address B. B., 192 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address W. T., care Daily Journal, Plaquemine, La. 12-23-97

WANTED—ENERGETIC AND STRICTLY SOBER young man wants position as manager of small store on plantation; salary or commission; gilt edge references. Address B. B., 192 Bayou Road, New Orleans. 12-17-97

WANTED—A FIRST-CLASS PAINTER, AC- customed to country and plantation work, would like to obtain work either by the day or contract. Address BRUNO, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address R. V. H., 129 Decatur street, New Orleans. 12-16-97

WANTED—AN EXPERIENCED OVERSEER; married, age 40, active and sober, can be had for 1898, at living salary. Address BOB, Port Allen, La. 12-16-97

WANTED—A POSITION AS OVERSEER OR manager on a sugar plantation; can furnish recommendations from prominent and successful planters of Latourche and Lapidès parishes and some New Orleans merchants. Address SMITH, care this office. 12-16-97

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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No. 13.

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AND

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Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.

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W. C. STUBBS, Ph. D. W. J. THOMPSON.
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Sugar in the German Army.

The German Sugar Manufacturers' Association is endeavoring to develop a larger home consumption for sugar, and for this purpose has addressed the Minister of War for the purpose of introducing sugar into general use in the army, and it has placed at the disposal of the military administration sufficient sugar to make some experiments in its use as a food stuff.

The War Department had instituted these experiments for the purpose of determining under what conditions sugar could be given to the men without injuring their digestion, and it is stated that before introducing sugar in any large scale in the army it will be necessary to await the results of these preliminary experiments.

Le Journal des Fabricants de Sucre, from which we get these data, calls the attention of the French sugar manufacturers to this effort now making in Germany, and argues that it would be wise to imitate it in France, where every effort should be made to increase the home consumption of sugar.

The Cambray Process.

In this issue will be found a letter from Mr. G. Cambray, the well-known inventor of the Cambray process of *double sulphuring*, in which he gives a tabulated statement of recent work done in cane juice with his process. A somewhat startling result is there shown in 82.87 per cent. purity for the mill juice, with 91.2 per cent. purity for the resulting syrups. Considering these data some of the solids not sugar have disappeared, and a natural inquiry would be as to whether or not their disappearance entailed any loss of actual sugar. On this interesting phase of the question Mr. Cambray's figures give no data. The old belief has been that heavy sulphuring of cane juices inverted more or less of the contained sugar; that these

inverted sugars might be destroyed by an excess of lime, and that these processes of inversion and destruction might go on considerably, if not indefinitely. We don't want to say one word against Mr. Cambray's process, because in a number of instances it seems to have been a splendid success, but the rising of the purity from 82.87 per cent. at the mill juice to 91.2 per cent. in the resulting syrups necessarily raises the question as to what became of the impurities and whether or not their removal entailed the loss of any sugar.

Sugar Beets in New York.

The New York Agricultural Experiment Station at Geneva has recently issued Bulletin No. 135, devoted to sugar beet culture in that State. In this bulletin Dr. Van Slyke, the station chemist, discusses the conditions required for the successful growth of sugar beets, and Dr. Jordan, the director of the station, gives a conservative statement for the outlook for the sugar beet industry, while Mr. Churchill, the agriculturist, records station experiments in growing beets in 1897.

The bulletin includes a number of general conclusions that will be of value to all of those interested in the now developing sugar beet industry of the country. Richness in sugar is said to require for its highest development an average summer temperature of about 70 deg. F., with two to four inches of rainfall per month during the growing season and none between maturity and harvesting, with an abundance of sunshine.

Analyses of about 140 samples of beets grown in the different parts of New York State during 1897 show an average of 15.3 per cent. of sugar in the beets, which is a higher average than most of the other States. The coefficient of purity averaged 82.5, while the yield of beets averaged from twelve to ten tons.

While the director believes that the conditions in New York are generally favorable to the development of the beet sugar industry in that State, he thinks it probable that the estimates of yields and profits have been placed too high, and that the capital may be misdirected and wasted in the establishment of factories without sufficient experience. All of which seems very true to those of us who look at the industry from a Louisiana point of view.

Sugar Cane.

Our various exchanges are bringing in continuous encomiums of Dr. Stubbs' recent valuable contribution to the literature of sugar cane under the title of *Sugar Cane, a Treatise on the History, Botany and Agriculture of Sugar Cane and the Chemistry and Manufacture of its Juices Into Sugar and Other Products*. The first volume now published is devoted to the history, botany and agriculture of sugar cane, and Dr. Stubbs promises the second volume probably within a year.

It is very rarely that any great industry has had such an opportunity for thorough exploitation as has the sugar industry of Louisiana at the hands of Dr. W. C. Stubbs. While our readers generally are thoroughly conversant with the vast amount of work done, a review of some of the salient points in the work may not be out of place. It will be recalled that Dr. Stubbs came to Louisiana as a visitor to the great Cotton Centennial Exposition in 1885; that he was at the time conducting some experiments with sugar cane at the Alabama Agricultural College, Auburn, which led him to suggest to the sugar planters of Louisiana the expediency of their undertaking similar work here. He was invited to appear before the Louisiana Sugar Planters' Association to deliver a lecture upon agricultural experiment work, with which the people of our country twelve years ago were far less familiar than now. In fact, at the time there was but one agricultural experiment station in the Southern States, that in North Carolina, conducted by Dr. Dabney, afterward assistant secretary of Agriculture under Secretary Morton. Dr. Stubbs' arguments were so convincing that the sugar planters of Louisiana acted upon his suggestion and endeavored to secure some scientific

agriculturist competent to undertake the work. The association endeavored to secure the services of Dr. Dabney, and failing in this, and failing for some months in securing any one competent to undertake the work, overtures were finally made to Dr. Stubbs himself, asking him to come to Louisiana to undertake this work. This was an outcome of the situation entirely unanticipated in the beginning by either Dr. Stubbs or the sugar planters of Louisiana, but the result was gratifying in the extreme. Dr. Stubbs finally consented to come to Louisiana to organize and carry on a Sugar Experiment Station. A special corporation was created and chartered to carry on the work. A small sugar plantation near Kenner, La., was rented and for several years the station was located at that point. Finally arrangements were made for the erection of buildings in Audubon Park and the allotment of some fifty acres of land for experimental purposes in connection with the work of the station, and here during the past ten years the grandest scientific achievements ever secured within the limits of the sugar industry in so short a space of time have been obtained.

While no such startling discoveries as Fahlberg's saccharine, 230 times as sweet as cane sugar, have been made, yet the work at the station has gone on under the direction of Dr. Stubbs exploiting the hitherto mysteries of the cane sugar industry, determining the failure of sorghum as a sugar-producing plant, because of its starch content, and in a general way creating the sugar planters, sugar chemists, sugar makers and sugar engineers of Louisiana into one great body of students, determined each to probe his favorite industry to its inmost recesses and to secure all possible advantages thereby.

Prime yellow clarified sugars were worth about 6 cents in the autumn of 1885. They sold at about 3 cents in the autumn of 1894, and for about 4 cents this last season. The depression in the sugar industry has been very great, but in the face of all this it has made rapid strides on its agricultural and manufacturing sides, and we believe that we are correct in saying that this has been made possible, largely if not entirely, because of the work of the Sugar Experiment Station under the direction of Dr. Stubbs.

A vast amount of good has been accomplished in the sugar districts of our State, much of which can hardly be traced to the work of the station, but the studious habits, the lines of inquiry suggested, the different experiments made, the losses avoided and the good results obtained have all come from a better, wider and profounder knowledge of the sugar industry than we ever had before, and a knowledge of it that we should probably have never secured but for the plan that we adopted in organizing the Sugar Experiment Station, as was done in 1885.

In writing his book on sugar cane, Dr. Stubbs has necessarily been compelled to treat of the history and botany of the sugar cane as preliminary to its agriculture, and especially as preliminary to its agriculture as carried on in Louisiana in the past and at the present time. He discusses the matter in various chapters, treating the history of sugar cane; the history of sugar cane in Louisiana; its botanical relations; the anatomy and physiology of the cane plant; the climate for cane, with weather record for Louisiana; the drainage question: irrigation as applied to sugar cane; the soils best adapted to sugar cane; the sugar soils of Louisiana; the various varieties of sugar cane; the comparative merits of purple and striped canes; the composition of sugar cane, its modes of reproduction; the suckering of cane; the preparation of land, planting, etc.; the manurial requirements of sugar cane; its cultivation, harvesting and preservation for mill and for seed; its insect enemies; bacteriological investigations of the cane, with the proper care of the work stock employed in the industry.

This valuable book of about 200 pages includes within its covers the results of twelve years of solid, effective and successful work in the study of sugar cane from a purely scientific point of view and with the industrial adaptation of all the investigations constantly in mind, but with the investigations at the same time entirely free from any industrial limitations. Original research and the ascertainment of the truth from the scientist's point of view was the underlying motive in the whole work. It may seem to some of those who now scan the book that it is but a compilation of commonplace data. Those who are the

better informed, however, as to the mysteries of the sugar industry will be delighted with the work and gratified to find such a careful, explicit and thorough statement of so many features of their favorite industry. In carrying on the work of investigation and in compiling the data, Dr. Stubbs has had the advantage of the assistance of the unrivaled corps of scientists that he has called into the work during the last twelve years, and one may be assured that the work thus so splendidly begun and carried on will be continued for years to come, and that in the sugar world everywhere Dr. Stubbs will always find appreciative listeners and readers.

As this book is written from a Louisiana point of view concerning sugar agriculture in Louisiana, it is Dr. Stubbs' special desire that a copy of it should be in the hands of every planter, plantation manager and overseer in Louisiana, and copies of it can be obtained gratis by addressing him at the Sugar Experiment Station, Audubon Park, New Orleans.

Sugar Beets in South Dakota.

To this subject matter Professor Sheppard, director of the United States Experiment Station at Brookings, South Dakota, has devoted his bulletin No. 56, which gives an account of the extensive experiments carried on at the station for the purpose of determining the adaptability of the State to beet sugar culture.

It is expected that the immense lignite coal beds lying along the Missouri river in North Dakota will afford a very cheap fuel supply for prospective beet sugar factories in that State, while the easy accessibility of St. Paul, Minneapolis, Chicago, Sioux City and Omaha readily open the markets of the West for any sugars that may be produced. The State is well supplied with limestone and water, and there are ample opportunities to utilize the residual beet pulp in feeding stock, as South Dakota is a large stock feeding State, wherein this additional forage could be advantageously used.

Dakota has been called the land of sunshine, and possesses the desirable climatic advantage of having little or no rainfall during the ripening period of the sugar beet, with very little danger of a second growth in the fall, owing to the cool nights. During this season of

the year the roads throughout the State are in the best possible condition for hauling heavy loads, which will be a potent factor in delivering the sugar beets to distant factories.

In regard to the quality of the beets raised, it is stated that of 160 samples analyzed in 1892, only about 16 fell below 12 per cent. sugar in the juice, some samples testing as high as 20 per cent. sucrose.

The results for 1897 were decidedly better, and it is found that—

68 samples tested from 12 to 14 per cent. sucrose.

127 samples tested from 14 to 16 per cent. sucrose.

99 samples tested from 16 to 18 per cent. sucrose.

28 samples tested from 18 to 20 per cent. sucrose.

10 samples tested from 20 to 22 per cent. sucrose.

7 samples tested from 22 to 24 per cent. sucrose.

It would thus seem a well founded conclusion that South Dakota can do extremely well in the production of sugar beets and that she will make her mark in that direction as soon as her farmers and capitalists shall come together into proper organization for the purpose.

The Velvet Bean as Forage and as a Fertilizer.

Every one in Louisiana who last year bought velvet beans from Mr. Geo. H. Wright, Orlando, Florida, seems this season profuse in expressions of admiration for this new leguminous plant, which has come rather suddenly into the Southern agricultural world as one of its most hopeful additions. As we understand it, over 100 bushels of these beans were used in this State last spring and summer experimentally, and the satisfaction given by the bean in the production of forage and as a fertilizing plant has been so great that the demand for the beans will be many times greater this season.

The peculiarity of this plant is its long period of growth, and while this promotes its peculiar work of fertilizing the soil by the accumulation of nitrogen therein, it has made it somewhat difficult in some instances to secure the beans for seed, as in some cases the beans had not matured at the time of the first frosts and a further supply had to be secured from Florida.

We trust that these beans will be

thoroughly tested again this season and that we shall verify with an additional year's experience the hypothesis that some of our sanguine growers of these beans have already announced, that they are not only superior as a forage plant and as a fertilizer to the cow pea, but are actually cheaper owing to the limited quantity required to plant an acre of land.

The Cane Crop.

A period of dry weather has enabled the sugar planters to virtually finish the work of putting the cane in the ground, and all reports are to the effect that the seed was found to be good throughout the whole operation.

There are some rumors to the effect that the spring plant is coming up very gappy in some sections, but it will be some weeks before definite conclusions can be reached in regard to the stand.

Can We Introduce the X-ray Into Our Sugar Houses?

Editor Louisiana Planter: Has any one in this country or in Europe, so far as is known, brought the X-ray into use in the manufacture of sugar? Reasoning from cause to effect, it seems to me that much valuable information might be obtained by applying the X-ray to the juice from the time it leaves the mill, through all its various stages and when it begins to crystallize, and in fact until the sugar emerges finished from the centrifugals.

This would be a nice study for the chemists, would it not? Please favor the readers of THE PLANTER with your idea of the X-ray in its application to the manufacture of sugar.

ERIN.

THE PLANTER has no knowledge of the X-rays having been applied to sugar solutions. As the X-ray probes into the mysteries further than the human eye, it would seem very possible that X-ray photographs of cane juice, raw and clarified, of syrup before and after filtering, and of all the stages of sugar crystallization, would reveal a progressive life history of sugar crystallization complete beyond anything we now have. Just as the solar spectrum has led to spectrum analysis in steel manufacture, showing where all the carbon is burned out, may not the X-rays tell the story of good and bad clarification, of good and bad crystallization. The X-ray eyes penetrate further than ours. Let us use them if we can. We must talk to Dr. Stubbs about them.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: A spell of dry weather enabled all our planters to finish the work of getting their cane in the ground, and the close of the planting season produced no new developments in the matters of condition of seed or the quantity thereof, reports being almost uniformly of a favorable character.

A few disturbing rumors have been heard during the past week, however, the burden of which is to the effect that spring plant in black land is coming up very gappily on some plantations, and that excess of water standing on such lands has had a deleterious effect on the seed tending to rot it. Fall plant is coming up beautifully, as a rule, and no complaint has yet been heard relative to cane in sandy land. It should be borne in mind that it is yet entirely too early to forecast condition and prospects of the winter and spring plant and present forebodings may be pleasantly dispelled by the developments of the next few weeks.

After a spell of weather almost summery in its warmth, we are this morning on the edge of the Texas blizzard that the signal service predicted. A cold wind is blowing, accompanied by drizzling rain, rendering the outlook anything but cheerful from a meteorological point of view. A little rain would not be unwelcome, but we prefer it to be accompanied by milder temperature.

Col. J. S. Webster, of Point Houmas and Terre Haute, was a town visitor this week, and chatted in his usual genial, interesting way about crop prospects for the current year. He is nothing of a pessimist and sees much to encourage and little to dishearten the sugar producer in the present outlook. Even as I write the words the sun bursts forth through a rift in the clouds and relieves the hitherto dismal aspect of the skies. Let us accept the omen as the harbinger of prosperous times ahead. Point Houmas and Terre Haute will be in the improvement procession as usual this summer preparing to take off big crops in the fall.

Messrs. Gaskins & Rolling are figuring on a new six-roller mill at Pike's Peak, and will make a fresh sugar record for that place this season if no unforeseen calamity interferes with their calculations. The building of the big new levee in front of Pike's Peak last winter necessitated the removal of a half dozen buildings, including the large mule stable, and the latter structure is now in course of reconstruction.

Col. J. E. St. Martin finished planting at Pellico, Arlington and Bar Harbor on the 10th inst., having put into the ground 215 acres of cane, or 110 more than his last year's planting aggregated. Mr. Adlard Landry got through his planting about the same time, and New Hope and Ascension were close behind him.

On the St. James and Armant plantations of the Miles Company, in St. James parish, planting was concluded last week, and Manager J.

K. Tucker had no complaint to make of the prospects.

The inevitable and ever-present road question gives us much concern, and there is a general hope that the Constitutional Convention will put in the new organic law some system that will enable the parochial authorities to handle this vital matter with more success than has been possible under present chaotic conditions of the law and practice. Hon. Henry McCall, who is always in the forefront of any movement calculated to enhance the public interest, has expressed himself to the editor of your local contemporary, the *Chief*, as "anxious for a solution that will insure Ascension good highways, and more than willing to bear his share of whatever taxation may be necessary to attain this object." That sort of sentiment is characteristic of most of the sugar planters of

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been all that the planter could ask for since last report, although the "March wind doth blow." A little rain would be appreciated now, to soak the crust resulting from the winds rapidly drying the surface. Cane is coming up well in places. We have had several reports from the Bayou Goula neighborhood and others from Bayou Plaquemine to the effect that the cane planted this spring was not coming out well and the stand would be full of gaps. This is to be regretted, for a bad stand this year will give a bad stand of stubble next. Corn is coming up nicely, and in some fields there is already a good stand of stubble.

Nearly every planter in Iberville shaves his stubble for the reason that it facilitates digging, destroys the grass and makes cultivating less expensive, without interfering with the tonnage. The digging is done almost exclusively with the digger, to which sometimes four mules are attached and moved along at such pace as to leave a wave or cloud of dirt falling behind the teeth of the digger similar to the wave of water stirred up by a boat's wheel. Very little hoe work is applied to the stubble.

The Myrtle Grove plantation on Bayou Jacob, formerly owned by Messrs. Roth & McWilliams, of Plaquemine, who sold it last January to Mr. Ernest Vicknair, of St. James parish, is now the property of Messrs. Frederic and John Wilbert, of Plaquemine, who bought it from Mr. Vicknair this week for \$48,000. This is an advance of \$4200 over the price paid by Mr. Vicknair, and is but another evidence of the confidence now enjoyed by sugar properties. Myrtle Grove is a splendid location for a central factory, which will now no doubt be erected there. The Messrs. Wilbert have heretofore confined their attention exclusively to the lumber business, in which they stand at the top, and, being endowed with energy, determination and abundant capital, success is assured in their new venture.

Hon. Germain Damare, of Convent, La., one of the proprietors of Oakley plantation at St. Gabriel, was at Plaquemine this week and

reports prospects very good. We hope soon to see a large central factory at Oakley.

Mr. M. L. Randolph, of Bayou Goula, will again sell his crop of cane by the ton to the George M. Murrell P. and M. Company, Limited.

From the New Orleans papers of Wednesday we observe that orders have gone forth notifying those parties draining their lands into Bayou Plaquemine to desist. While feeling that such a step would be taken sooner or later, our planters were hoping that it would be postponed until the locks were nearly completed. It has taken twenty-eight months to do the first work on the locks that was expected to be finished inside of twelve, and that first work is not entirely done yet. Several years may intervene before the locks are realities.

A large force of convicts is now at work on the Margaret levee below St. Gabriel and are rapidly bringing it to completion.

The levee authorities should now call the attention of the rice planters who are sowing rice close to the levees to the law prohibiting the planting of rice within a certain distance of these embankments. IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: From Monday, the 14th inst., until last night, the weather was perfectly dry. During the nine days named the thermometer hovered around the eighties, vegetation put forth rapidly, even to the pecan trees, and everything indicated that the winter was over; but last night a sudden change occurred. At about 11 o'clock the wind, which had been blowing from the south for weeks, shifted to the northwest, and a fairly heavy rain began falling, accompanied by quite an electrical display. As a result of this norther, the mercury this (Thursday) morning registers scant 50 deg. and seems to be falling. Just what degree of cold will follow in the wake of this sudden change can not, of course, be anticipated, but it goes without saying that anything in the nature of a freeze, or even a frost, with vegetation in its present advanced condition, would be exceedingly injurious.

Last night's rain was needed. The sunshine and steady wind of the past two weeks had dried and hardened the ground a great deal, and a rain was necessary to soften ploughed land.

Planting has been practically completed in this parish, much to the satisfaction of all parties concerned. The situation with respect to stubble and seed cane remains unchanged. Here and there some defective seed is found, but the bulk of it is good. Mr. John Cronan, of Belle Vale plantation, has suffered more from defective plant cane than any other planter in the parish. He has about thirty acres of plant that is quite bad at present, but favorable conditions later on may improve it. As to stubble, no complaint so far is heard. It is beginning to show up nicely and is very promising. This is true of second as well as first year's stubble.

The impression is general that this will be an excellent crop year. The threatened cold

weather is somewhat discouraging, but eliminating this, it must be confessed that the situation is encouraging. Quoth a planter a few days ago: "If these favorable conditions continue, we shall have red joints in May."

I understand that Northern capitalists, now prospecting in Pointe Coupee, are contemplating the construction of three central sugar factories in that parish—one at Lakeland, another on what is known as the island and a third at Innis, in the upper portion of the parish. These factories would be powerful agencies in developing the sugar industry in that section, and would enable the small planters to rid themselves of the tyranny of 4-cent cotton.

A lengthy document was filed here in the office of the clerk of court, last Wednesday, in which Mrs. Florence E. Laws, wife of Henry L. Laws, transferred to him the title to Cinclore plantation, which had been vested in Mrs. Laws since 1884.

WEST BATON ROUGE.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: As a compensation for the unfavorable weather during the months of January and February, latterly it has been most propitious: not only have the days been favorable and warm, but the temperature at night above the normal for the season. In consequence a large amount of field work was accomplished last week, and now but a limited area remains to be planted in cane, and a large acreage of corn has been seeded. On some places the major portion of the stubble has been shaved, after which it has not only been machine-dug but also hand-dug, and the bulk of the corn planted. On other places again work is backward from divers causes, one of which is inadequate fall preparation to expedite spring operations. Another is having to plant cane after cane, a system which tends to exhaust the fields, and is contrary to the laws of good husbandry.

Although the prevailing winds have been from the south, yet the lands are becoming dry, and a warm rain ere long would prove advantageous, particularly when the canes have been planted since the rains. Such areas were generally in bad condition and the clods have dried rapidly, and now the mother canes require moisture.

The earliest planted canes begin to mark the row, and the ratoons are showing up far in advance of last year, and the first planted corn is up nicely. Should the weather but continue favorable the fields will become green at an earlier date than usual.

From the average output during the last campaign the season was not what may be styled a sugar year; yet the yield per ton of cane was very satisfactory with some. The indiscriminate application of tankage and cotton seed meal to canes, particularly the latter, late in the season, is certainly detrimental to large sucrose yields per ton of cane.

If the fertilizer is coarse, particularly tankage, the decomposition of the animal manure is slow under the most favorable climatic con-

ditions, and when there are extremes of wet and dry weather the process is retarded; in consequence, the nutriment which the canes should have in abundance in July and August to promote luxuriant growth, may not be liberated until in September or early in October, when the canes should begin to develop saccharine very rapidly. Because tankage is rich in phosphates is no guarantee that it can or will counteract the effect of the potential nitrogen in the manure.

Steamed bones and nitrogen in animal tissue are not the ingredients to use late where rich canes are desired; better far make the application to the corn areas, or in the fall when the lands are being ploughed for cane; yet tankage can also be used advantageously when planting cane either in the fall or spring.

The official report of the weather from Schriever is as follows:

	Temperature.	Rainfall.	Sunshine
March 14.....	80.6	61.8	100
" 15.....	81.5	64.2	100
" 16.....	83.0	65.0	100
" 17.....	84.1	65.2	100
" 18.....	83.8	65.6	100
" 19.....	82.8	66.9	100
" 20.....	83.5	64.9	100
	83.0	65.0	100

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The weather for the past week has been just all that could be asked for by farmers. Every day has been clear and bright, and the only disagreeable feature noticeable was the stiff wind that has been prevailing for the past three or four days. Farm work is progressing very favorably and within a few days the general crop will be planted. Cane planting is virtually over and the stand promises to be all that could be asked for. Your correspondent has been in the country several times during the past ten days and every section where there is cane planted there is more energy displayed in pushing the crops. Stubble as well as plant cane is coming out nicely. A drive Tuesday afternoon with Senator S. P. Watts, of Abbeville, through the cane belt showed a decided advance in the crop over same date last year. There are large fields of cane that is already up to almost a perfect stand. Stubble is being shaved and worked out and a few planters are already exposing the roots to the sun, either by running a digger over or chopping out with a hoe. The corn crop looks very promising for the season. Some of our most thrifty corn growers have corn that will soon be ready to plough. There is but little said so far about the cotton crop for this year; 5-cent cotton last year was not very encouraging. The acreage planted to oats this year is much larger than has ever been put in here before, and the yield promises to be satisfactory. "The rice crop will be put in now and the acreage will be very large. Reports from the western part of the parish on the increased facilities for raising rice and the increased acreage that is being prepared are certainly very flattering. The Gueydan Canal Company have started on

their canal from Primeaux' Landing, seven miles west of their present canal, and will extend it to the east line of the Gueydan pasture. This extension has been mentioned in *THE PLANTER* before, but then it was merely a prospect. Now it is a certainty, as the work has been started and will be pushed to completion. The Gueydan country is the finest rice country in the world if you consider all the many advantages that favor the raising and harvesting the crop. The Hall & Slutz canal is nearing completion. These gentlemen have changed their first plans concerning a pumping plant and will now put in a much larger plant than that first decided on. Their intention is now to extend their canal next year for a distance of six or seven miles further northwest, thereby opening up a large area of fine rice lands.

Judge John Clegg, of New Orleans, was in Abbeville last Saturday and Sunday transacting business pertaining to the Rose Hill Planting and Refining Company of this parish. Judge Clegg has been recently chosen president of this company and will hereafter look after the business of the same. Mr. J. Henry Putnam is secretary and treasurer.

Mr. W. G. Hamlin, of Lake Side, Cameron parish, was in Abbeville on business the latter part of last week. Mr. Hamlin has been identified with the rice industry of his section for the past eight years, but the preparation for a crop in 1898 exceeds by far anything that he has heretofore witnessed. He says that there are a number of very large irrigating canals being built both in his parish and in Vermilion, the water to be supplied by Lake Arthur.

Mr. Walter Gordy, District Attorney for the parish of St. Mary, is spending a few days in Abbeville.

Mr. E. M. Stebbins, a prominent sugar planter of Vermilion, left here Tuesday for Patterson and other points on the Teche.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: A season more delightful than has prevailed for some days past could not in reason be asked for by any one engaged in the cultivation of the soil. True enough the wind has been blowing from the south for quite a while in blustery gusts, damp and cloudy, but not too much so for successful ploughing and planting.

Corn is now coming up to a beautiful stand, and looks to be very strong and healthy; some of it is now ready for the first ploughing. The acreage to corn this season is, it seems, above the average planted during the past three years, and from present indications it begins to look like a big crop of corn will be made to harvest this fall.

Not a few of our foremost farmers succeeded in planting from five to ten acres to cotton during the past week, as an early commencement, to be followed at intervals with seeding until the entire crop shall have been planted.

The cane growers are now on the rush with their work, ploughing, scraping cane and shaving stubble, etc., and some of them, as they find time, are planting corn.

While taking a turn over the country on the 19th inst., when passing through the Powhontas plantation by the way of the public road, I noted that a large per cent. of the cane on the place had been scraped, and noticed that some of the first planting of cane was coming out through the soil beautifully.

If I am not mistaken Mr. C. G. Fuselier, the progressive young manager of the Powhontas plantation has planted this spring some 800 acres to cane. The stubble on the place is good, and it has been shaved and put in shape to grow. It is understood that Mr. Fuselier is planting for a heavy corn crop, to be followed later with pease. My time was so limited that while wishing to call on Mr. Fuselier, I found it out of the question to do so.

On the 21st instant, THE PLANTER's scribe was on the wing from Haasville to Cheneyville and Theoda, a distance of twelve miles by the public road in its winding way along Bayou Bœuf, bordered with lovely homes, fine farms and plantations at every point, and I found the plowmen plodding their weary way turning the soil, planting and preparing to plant. The corn crop which has been planted along the way was up and coming to a fine stand.

At Bennettville I noted a force of men engaged in shaving stubble. I would have liked very much, if time had permitted my doing so, to call for a moment on Mr. Bennett and his manager, Mr. A. Tower, but some future day, I may find time to do so.

While in Theoda I dropped in on the firm of Pierce & Bennette, and from Mr. Pierce learned that Mr. Geo. W. Bennette had planted this spring some 140 acres to cane, and of first year's stubble there was 70 acres, and of second year's stubble 30 acres, all of which was found so far sound and promising throughout. Mr. Tower, managing for Mr. Bennette, will plant for a heavy corn crop, finishing off with a big pea crop. They made an enormous corn and pea crop last season, and have to-day 3000 bushels of corn to sell, and plenty to feed with until a new crop can be made. Their mules are in good order, and field work well advanced.

Farm and plantation work in the vicinity of Theoda and Cheneyville was said to be advancing to the satisfaction of those who engage directly in the cultivation of the ground.

From authentic reports which have come to hand it is learned that the farmers and business men of Bayous Rouge and Des Glaizes came together in Cotton Port a week or ten days past and perfected an organization for the purpose of building a central sugar factory at or near Cotton Port. There is no doubt but success will follow, as it is learned that the ablest men in that locality have the matter in hand and will be likely to forward the good work begun to an early completion. Alexandria, "the Future Great," is preparing to come to the front with a surprise in the shape of a big 1000-ton sugar factory. If I mistake not, an organization has been perfected to this effect.

Mr. E. V. Weems, proprietor of the Coco Bend sugar factory, is busy nowadays with improvements. Among other things now on

foot is the laying of a spur track from the Texas & Pacific Railroad out to the factory, a distance of half a mile or maybe more.

During the year Mr. Weems will put up some four or five miles of tramway for the benefit and convenience of the cane growers situated at various points along on the bayou and in the country. ERIN

Trade Notes.

Belt Dressing.—It is the slipping heel that wears the hole in the stocking, and it is the slipping belt that wears the leather. Belts that slip not only do not drive properly, but they wear out rapidly. A belt that is too tight is overstrained, and will also wear out rapidly. A thoroughly reliable belt dressing is therefore a necessity in every well regulated factory, and probably no dressing has such a world-wide reputation as Dixon's Belt Dressing and Leather Preservative.

As long ago as 1873 it was used on the big driving belt at the Paris Exposition, when every other means had failed to make the belt take hold of the pulley that was to start the thousands of feet of shafting and hundreds of machines. Those who use Dixon's Belt Dressing claim that it prevents slipping and thoroughly preserves the life and elasticity of the belt. It is made only by the Joseph Dixon Crucible Company, Jersey City, N. J., who are known the world over for their graphite products.

McDonald's Hydraulics.—There is no mechanical device known to modern sugar mill work that has done more to benefit the industry than McDonald's hydraulics. They double the strain that may be applied to old cane mills, because their proper adjustment so limits the strain that it is held within safe limits. Scores of old cane mills are now running each season under strains that would break them down within an hour were the hydraulics not present as a safety valve.

Many of the users of new large heavy mills argue that the great strength of their mills obviates the necessity for hydraulics. It is manifest that even in these mills where three to five hundred tons pressure is applied when there is a big feed the pressure is greatly reduced when the feed thins out, unless the hydraulics are to hold the rolls down tight to the work whether the feed is thick or thin. Read Mr. McDonald's advertisement and write to him for particulars.

Hauptman & Loeb.—This firm, which is a comparatively new one, although the individual members thereof have been enjoying the friendship and confidence of the sugar planting community for a long term of years, has spared no expense in their arrangements for handling the immense amount of business bestowed on them.

At the corner of Gravier and South Peters streets they have an entire building devoted to their commodious offices, warerooms and supply department, and besides they are now maintaining as a special and permanent feature of their business a complete machine shop for handling any and every kind of sugar house

construction and repair work. This shop is splendidly equipped, represents a heavy investment and possesses every tool and appliance necessary for quick and accurate work. Only the most skillful workmen are employed and satisfaction is guaranteed.

Clarifiers.—Elsewhere in this issue we print an advertisement inserted by Mr. Daniel Thompson, to which the attention of many of our readers might be profitably directed. He advertises for sale at Calumet plantation eight clarifiers, eight feet by six feet by four feet, of $\frac{1}{8}$ -inch copper throughout, with 3-inch copper coils, juice connections and all pipe valves and fittings complete. The condition of the apparatus is guaranteed by Mr. Thompson, and he says there is not a finer train in the State of Louisiana. It has made crops of five and a half million pounds.

Talmage on the Rice Market.

Good inquiry prevails in all styles of foreign; as heretofore choice Java commanding the larger patronage. Full prices are exacted, as receipts are light and no enlargement expected until the Burmah new crop arrives, April-May. Advices from the South note slackened movement at all points along the Atlantic coast, in New Orleans and generally throughout southwest Louisiana. In spite of this prices are firm, as the remnant of crop is limited and in the hands of those who know and propose to get its full value "if it takes all summer." Cables from English and continental markets report quick movement in all "spot" and near-by parcels. Scant stocks and supply are still the order, latter being 130,000 bags short of equal date last year. New crop is "booming" and millers who held aloof refusing to sell last week are the gainers by 15 to 20 cents per 100. Sales made are against future delivery and subject usual market conditions of safe arrival of steamers and provided outturn be of standard quality, otherwise contracts to be void.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 56,490 barrels. Sales, 55,950 barrels. Steady, though limited demand. Market firm.

Talmage, New Orleans, telegraphs Louisiana crop movement to date: Receipts, rough, inclusive of amount carried over, 500,275 bags; last year, 561,370 bags. Sales, cleaned (est.), 101,957 barrels; last year, 98,950 barrels. Market quiet but strong. Prices firm and with limited stock, early advance anticipated.

Mr. E. P. Munson, one of the leading planters of Assumption parish, registered at the St. Charles Hotel on Wednesday.

Mr. B. H. Pring, of the well-known Oneida plantation in St. James parish, was a recent visitor to the city, stopping at the St. Charles. Mr. Pring has the Oneida place in the finest kind of condition.

Mr. John Osten was the engineer as usual on Elm Hall during the recent crop and that fine house worked like a clock under his skilful supervision. Elm Hall appreciates the importance of having a good engineer.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, March 5, 1898.

Editor Louisiana Planter: There was last week a continual variation of all sorts of weather—rain, snow, hail, fog and sunshine, but the latter only for a very short time, so that the dominant feature of weather was again moisture, together with a pretty low temperature. This does not look like spring, which meteorologically should now begin, and which astronomically is near at hand. To begin the field operations, as a matter of course, could, under the circumstances, not be thought of, and in spite of the mildness of the winter an early commencement of field work is past hope. If the fresh weather keeps on for some time to come even a normal start is doubtful, which is also the case in most non-German beet countries, the weather there having been likewise atrociously changeable and wet, and consequently a dry spell is urgently wanted all around. As to the probable surface to be sown with beet little worthy of note has transpired. The uncertainty with regard to legislation regarding the bounty question is hampering the free closing of contracts, and the improvement of corn prices causes the farmers to ask higher prices, whilst the fluctuations of the sugar market make the fabricants somewhat cautious. Considering these circumstances it may be taken for granted that the possibilities are not for a material increase of the sowings, at least not in the aggregate, for, if one of the countries concerned grows a little more, there will probably be others growing less.

The bounty affair has not made any notable progress. Many no longer believe that there will be a conference held on that account; others are of the opinion that the representatives of the powers interested in the bounty question will meet next month. But this is only newspaper talk and nobody knows anything reliable on the subject.

In the French law of April 7, 1897, a transitory provision was inserted that the direct bounty allowed by that law should be paid only for 1896-97 to the extent of 50 per cent., and that eventually a supplementary amount should be given provided that there were sufficient means available to do so. By a decree of the government, it is now stated that an additional payment shall take place amounting to 32.728 per cent. of the half which so far has remained unpaid, and it thus happens that the French fabricants received nearly 83 per cent. of the whole bounty as fixed by the above quoted law. For 1897-98 no deduction is made anywhere.

In a recent meeting of prominent agriculturists, experiments were mentioned with regard to the feeding of cattle with the lower products of the sugar factories, such as third and lower runnings. It has been found that there was no marked advantage visible in the condition of sheep and cattle which were to be fattened, but good results have been obtained by giving low qualities of sugar to swine, so that by using

fifty kilogs. of so-called after-product, worth about 7 marks, an increase of value of about 36 marks—and therefore a clear profit of about 29 marks—has been found to result. The experiments will be continued, and reports are to be published as to their results.

As a good and most nutritious kind of fodder for cattle, beer dregs mixed with molasses is now recommended and extensively used.

In the face of the rising prices of coal efforts have been made to get a cheaper kind of fuel, and the attention of the industrials has been directed to coal dust heating, of which I wrote you already when the process emerged as a new invention. The results obtained are said to be fairly satisfactory. However, the factories have so far hesitated to introduce the coal dust heating into their establishments on account of the dangers still adhering to it. The fire strikes backward and is likely to cause explosions. In one factory this kind of heating has been abandoned, as it indeed caused an explosion and damaged the chimney to a large degree. Further experiences are absolutely necessary before coal dust heating, which no doubt is cheaper than common coal, can be recommended for general adoption.

An official statement says that in the campaign of 1897-98 the sixteen factories existing in Sweden have worked 716,171 tons of beet as against 890,210 tons in 1896-97. The production of sugar can not be stated yet, as the season of 1897-98 is not finished, but in 1896-97 it amounted to 105,556 tons or 11.86 per cent. raw value, and besides 25,616 tons of molasses or 2.88 per cent. were obtained. It may be observed that the Swedish sugar industry has made big strides. In 1892-93 there were ten factories which in the average worked 27,745 tons of beet, whilst in 1896-97 46,855 tons was the average for above sixteen factories. In 1897-98 a small decrease is noticeable, as is shown by the above figures.

The Russian Minister of Finance has, under date of January 15-27, issued a new plan of distributing the sugar crop of 1897-'98. Each factory being authorized to bring first of all 60,000 poods on the home market, there remains for distribution a total quantity—crop and stocks—from the preceding campaign of 46,238,300 poods, 32,097,460 poods. Of this latter quantity, 58 per cent.—18,618,506 poods—are additionally admitted for sale in Russia without paying a higher tax; 4 per cent.—1,283,898 poods—form the reserve stock, and 38 per cent.—12,167,034 poods—must be either exported or pay the double tax when sold on the home market. But this plan is yet provisional, as a number of factories have failed to send in their definite figures of production.

It is rather late to give the detailed statistical items of the three large beet sugar countries of Europe—Germany, Austria and France—for last January. This much, however, may be mentioned, that the figures in question are much more favorable than last year, which is put in evidence by the stocks which in January have decreased by 12,700 tons, whilst last year at the same time they increased to the extent of 71,000 tons.

The activity which the markets have exhib-

ited last week has much abated, and even favorable figures of German stocks of first products in first hands, as well as the moderate tenders and their being promptly disposed of, could not do much toward enlivening business, which was restricted in the markets both for actual and terminal sugars. At the close of the week the feeling has improved a shade, and of the loss of 5 pfennigs for 88 per cent. rendition at Magdeberg $2\frac{1}{2}$ pfennigs could be regained, the closing quotation being 10.10 to 10.30 marks, whilst delivery March is worth 9.25 marks f. o. b. Hamburg. Refined have been quiet, and cubes $12\frac{1}{2}$ pfennigs cheaper than last week.

ROBERT HENNIG.

Barbados.

With the exception of light showers, hardly more than mere drizzles, at the beginning of the month, February has been perfectly rainless, with breezy, sunshiny weather fairly suitable to this land of windmills. Our limestone rock is so dependent on the favor of the clouds, and young and tender plants, even the comparatively hardy cane plant, so greedy of water, that it could not be but that lack of moisture and hot suns should severely tell on the young crop, and make supplying doubly necessary. However, on the score of the young crop there need be no special anxiety, for despite the unfavorable weather it is holding its own; and although in some districts still too patchy, it has no defects but what time, diligent supplying, careful weeding, and a soaking shower will surely remedy. Over our island the sea breezes sweep, drying the surface, while the limestone underlying the blanket of humus quickly filters away superabundant moisture. In such a soil, and influenced by such a climate, plants concentrate their essences, peppers are hotter, sweet potatoes sweeter; but of all the plants that feed the great industries of the world none is more adapted to our circumstance of soil and climate than the sugar cane, which in two centuries of cropping has by no means diminished the supply of honey juice stored in our sugar lands. Well will it be for our island if instead of stamping out our industry the great bounty-made crisis should have the effect of improving the processes for reaping and manufacturing the rich and inexhaustible produce of our teeming soil.

During the past fortnight reaping has been cautiously pursued—reports from various localities of from two to one and one-half tons to the acre, but with an improving tendency. The fact is the canes are not full ripe, never are full ripe in February and the beginning of March, as proved by the fact that over 2000 gallons of cane juice are now required to the hogshead of sugar. Our planters labor under the disadvantage of inadequate machinery.

Whether wind mill or steam mill the crushing power is insufficient, and the early loss is never so great as when by prolonged reaping to the end of June, or deep into July, the canes rot, degenerate and lose their saccharine. The sugary months with us are April and May, and we shall never be able to say that we have reaped our crop and fully obtained the yield of our soil until we acquire machinery capable of manufacturing the entire island crop at its time of sweetest perfection. That is our great need, and no planter in Barbados is so unwise as to dispute it. But—and there is always a but in human affairs—"things must go on as they are until the market improves and gives a fair margin of profit," then truly will Barbados with her excellent tillage and fertile soil take steps to improve her manufacture and to gather in her uttermost Crystal.—*Agricultural Reporter, March 5.*

BEET SUGAR.

Chino, California.

The past week has given much encouragement here to the beet farmers. Within eight days we have had 1.11 inches of rain, which has put the surface of the beet land in excellent condition for planting and germination of the seed. Some of the land is not yet wet through to the moisture below, however, and on such land a heavy, soaking rain is much needed to assure its retaining moisture through the growing season. Although the chances of a soaking rain are now daily growing less, the continuation for another month of showers such as we have had the past week will give on the Chino ranch a fair beet crop.

A considerable acreage of Chino ranch land is yet moist from below by our natural sub-irrigation. Some of our neighboring beet-growing sections lack this feature, and at the same time have had less recent rains than we. Farmers in those sections are much discouraged. Present prospects point to a very light crop at both Hueneme and Alamitos.

Planting on the Chino ranch is now progressing steadily, and a number of the first fields planted are now showing rows of green. Since the recent rains a number of planters have commenced planting who had been quite discouraged before.

Owing to the drought the farmers who had contracted to grow sugar beets in the valleys about Hollister for the factory building by Spreckels at Salinas have been released and given permission to plant whatever crop they think best.

At Hueneme, also, the continued dry weather is making the farmers cautious about planting beet seed, when there is grave doubt about a harvest resulting. A correspondent in the *Express* says:

"One of the stipulations relative to the building of the sugar factory at Oxnard was that the farmers in that vicinity were to plant 10,000 acres in beets, the Oxnard company furnishing the seed, which was to be sold at \$2 per acre. The farmers have been notified, but a large majority say it will be useless to plant without rain, and that they would take the seed gladly if a crop would be guaranteed. Just how the affair will terminate can not be settled at present, but the Oxnard company is unwilling to lose \$20,000, the amount invested in seed."—*Champion*, March 13.

Watsonville, California.

Early sowings have commenced and several hundred acres have already been seeded to beets.

All the upper part of the San Juan valley has gone dry this year. Some of the land prepared for sugar beets is being sowed to barley and the rest will be left fallow. The same course is being followed with most of the beet lands in the Salinas valley.

As a rule winters in the Pajaro valley are too wet to allow our farmers to do the best possible work on their land. The past season has been an exception, farmers having been able

to work through the winter with no lost time, and the land is in a fine state of tilth. Splendid crops are assured in this valley.

We are experiencing the driest year for many seasons—in fact, we must go back to 1877 to find a similar scarcity of rain. The proverb that "all signs fail in a dry season" has been strikingly exemplified during the past winter, for signs there have been enough for the wettest of years. A south wind would blow for days together, an almost sure sign in winter of a soaking rain, without bringing the desired downpour. Indeed so sure a sign of rain is a south wind that the old Mission Fathers would allow prayers for rain to be said only when the wind was in that quarter. The outlook for the beet crops or any other crops outside of a few favored spots is gloomy. There is a slight possibility that heavy spring rains may give moisture to lands that are now too dry, but it is unreasonable to expect them, and showers are about all we can hope for.

The Salinas valley is suffering severely from the drought and will raise no beets except on the moist lands at the mouth of the Salinas river and King City, where some irrigating is being done on the Spreckels ranch. Around Hollister the country is very dry, and judging from present outlook little crops of any kind will be raised. At San Juan a few fields have sufficient moisture and will raise beets. At Gilroy and around Bloomfield prospects are brighter, most of the land is moist, is in splendid condition and will raise large crops. The Pajaro valley, with a rainfall for the season of a little over nine inches, is in a better condition than the neighboring valleys. The land has enough moisture, and with the usual allowance of spring showers and summer fogs, heavy crops of every kind may be confidently expected. It looks as if the larger part of the supply of beets for the Watsonville mill will come from the Pajaro valley this year, owing to comparative failure of the crop in other valleys. It is the first time that this has happened for many years. Yet although our beet prospects generally must be termed unfavorable, we are in much better shape than the beet districts in Southern California, and we will hazard the prediction that our Watsonville mill will make more sugar this fall than all the rest of the sugar mills in California put together.—*Pajaronian*, March 17.

Los Alamitos, California.

Because of lack of rain at the Los Alamitos factory, owned by the Clarkes, no beets will be grown. The same remark is true of the Oxnard factory at Hueneme, and the Santa Maria enterprise of the Alvarado Beet Sugar Company at Santa Maria. The greatest set-back, however, will be in the mammoth beet sugar investment of Claus Spreckels at Salinas, into which \$1,500,000 is being invested. Unless unusually abundant rains should fall within the next few weeks, no beets will be grown and the great refinery will remain practically idle during the entire season. In spite of this the work of preparation is being actually pushed on the buildings and machinery is being placed in them.—*Financial Letter*.

Lehi, Utah.

The rays of a gentle spring have soon thawed out the latent activities of our farmers and laborers and they are now working off surplus energy laid up during the winter. The sugar factory people could wait no longer and have begun work. They have dug into the pile of mother beets at the factory and find that not so many of them have been destroyed by the frost and fire after all. Superintendent Vallez says the loss may amount to 15 per cent. He says they have kept very well and are giving good tests in the analysis. These are being planted as rapidly as possible. Four acres will be planted on the bench and four acres in the old field. The planting is being done about three weeks earlier than last season. If this proves a good year for beets, next year they expect to have enough mother beets to plant one hundred acres and will go into the seed business extensively. Superintendent Vallez says our bench lands can not be excelled for raising seed and he is sanguine of the success of this part of the sugar industry.—*Banner*, March 15.

Ogden, Utah.

Manager Clark complains that the Weber county farmers are not taking advantage of the opportunity to raise beets. It will be necessary, in order to keep the factory running full time, to have close to 50,000 tons of beets contracted for at present. Weber county farmers have contracted for 750 acres, or about 10,500 tons, figuring on the Lehi average of 14 tons per acre. Hooper has done well and the citizens are making good contracts, but Plain City, Warren, Slaterville and even Wilson where the factory is located, are not coming up to the expectation of the company. It is an opportunity for the farmers to double the productivity of their farms and they should take advantage of it. The farmers will be the first to feel the benefit if they only take care of themselves.—*Ogden Standard*.

Eddy, New Mexico.

Manager Goetz returned the latter part of last week from New York, with full authority to proceed with all needed improvements in the sugar factory, and to enter actively upon the work of the season of '98.

There will be a number of changes and alterations made in the factory, chief among which will be the increasing of capacity of the centrifugals. W. C. Barker, general manager of the American Tool Machine Company, of Boston, manufacturers of the noted Weston centrifugal machines, was here this week, and made plans and submitted bids for installing four of their standard forty-inch machines, with complete equipment, in the local factory. The factory now has five centrifugals, but the new machines with which they will be replaced will have a capacity for handling sugar four times as great.

Contracts are now being signed by the farmers and seed delivered for planting. Much of the ground is already prepared. The sugar company will put in at least 500 acres, the ground now being ploughed. It is hoped that

farmers, and citizens as well, who are equally interested that the campaign be made a complete success, will do all in their power to have beets planted, so as to bring the total acreage up to at least 3000.

We wish to urge upon every farmer and upon every citizen of the valley the necessity for co-operation in this season's labors. The agricultural possibilities of the country can be said to be face to face with the supreme test, and upon the result of this year's endeavor depends in a great measure the future of the beet sugar industry in the valley.

The merchants and business men of Eddy, who are vitally interested in the success of the sugar proposition, could co-operate and assist in no more effective way than by organizing small companies and putting in forty or fifty acres of beets. Intelligent cultivation, proper fertilization, and co-operation will bring success complete. All together, now, and it is won.

We are in a position to state that if by June 1 the condition of the crop is of an encouraging nature and the acreage sufficient to justify, the factory will be put in as complete and modern condition as is possible to make it, and prepared to handle a large quantity of beets.

Planting largely itself, the company will have a complete farming equipment and will, no doubt, be in a position at harvesting time, and during the thinning period as well, to give assistance to such farmers as are in need of it. Having a force of experienced men, this will be quite a convenience, and one saving much money to farmers, for it follows that they can handle a field much more expeditiously and satisfactorily than green hands.

Every effort will be made by the factory management to speed the work of planting, and to assist in procuring remunerative returns for the grower. It should meet with every encouragement and assistance.—*Pecos Valley Argus, March 18.*

Oregon.

Messrs. Outler and Granger returned on Thursday from their visit to Grand Ronde Valley, Oregon, where the new sugar factory is to be built. They speak very highly of the country and think it an ideal region for growing sugar beets, and the prospects for the success of the farmers and factory are very flattering. The farmers are going into the business in earnest and do not doubt its success. They have grown experimental patches of from one-fourth to two acres, and the tonnage and sugar contents have been exceptionally high. Fifty-nine farmers have contracted for 3500 acres. The people of the valley will be given a chance to cultivate them, but if enough help can not be secured there Chinamen will be brought in to do the work. There is a splendid chance for farmers from here to go there. The farmers will let them have lands to cultivate on the most reasonable terms and be glad to have experienced men from here, and some are talking of going up there. Mr. Granger returns this week, and as soon as he gets back work on the factory will begin and be pushed

to completion as rapidly as possible. They expect to have all the beets they can handle next fall, and will give the new factory a good test.—*Lehi Banner, March 8.*

Instructions to Beet Growers.

The sugar company along with its contracts has issued instructions to farmers regarding planting, cultivation, etc., among which is noted the following. It agrees perfectly with the advice of all the expert beet growers who have visited this section and should be carefully followed by all farmers: "The past year's experience has shown how important it is to plough deeply. Irrigate your land thoroughly. As soon as horses can go on the land, put three good horses on a fourteen or sixteen-inch plow and turn your land over at least twelve inches deep; or take a twelve or fourteen-inch plow, with two horses, turning land over eight inches deep and follow with a subsoiler or beet-harvesting plow (such as used the past season), running six inches deeper. The increased tonnage gained by either of these methods will pay you well for the extra expense. By turning up the ground thoroughly in this manner, the beets will grow long roots, and very little of the beet will be above the ground. There is very little sugar in that portion of the beet which is exposed, and beets grown largely above the ground are liable to be rejected by the factory."—*Argus.*

Another New York Beet Sugar Factory.

[Special Correspondence.]

Editor Louisiana Planter: The Binghamton Beet Sugar Company is incorporated for \$440,000. The directory is composed of eleven of the business men of Binghamton. The machinery for the factory was purchased in France, is the best of its kind in every particular, and will be installed in a fireproof brick building. The plant has a capacity of 300 tons of beets per day, is located one mile east of the city of Binghamton, at Sugar Station, on the D., L. & W. It is expected that 100 hands will be employed in the factory; that it will convert 20,000 tons of beets into sugar during the fall and winter of 1898. B. B.

Binghamton, N. Y., March 14, 1898.

Beet Pulp as Cattle Feed.

The Salt Lake *Tribune*, in its New Year's edition, had the following relating to the feeding of cattle and sheep on beet pulp at the factory in Lehi. It shows what value is placed upon the product by well informed men, and indicates that the feeding of stock will become an important and valuable feature in all beet sugar districts. The sheep now being fed at the factory in Eddy justify in every way the expression in the appended article. They are putting on weight rapidly, and in every way showing the beneficial results of the pulp diet. With its pulp and enormous quantities of alfalfa, the Pecos Valley will soon have an enviable reputation in stock circles. The *Tribune* says:

"The value of sugar-beet pulp as cattle feed is just beginning to be known. Heretofore it

was thought that this soft, mushy, sour stuff was of little value unless as feed for milk cows. The idea that it was a fat-producer was laughed at by stock men of large experience, who contended that an unlimited quantity of grain must be fed with it in order to fatten cattle or sheep, but time and a fair trial have proven the fallacy of this idea. The value of this pulp was seen several years ago by the Utah Slaughtering Company, and a contract was made with the Utah Sugar Company for its entire output of pulp for five years. One of the provisions of the contract was that the slaughtering company should build sheds and feed its cattle in Lehi. This part of the agreement shows the great interest taken in the people of Lehi by Manager Cutler. The feeding of from 500 to 1600 head of cattle for six months out of the year furnishes a market for about 1200 tons of hay, a large quantity of which is raised on the surrounding benches. If it were not for the foresight shown by Mr. Cutler there would be but a limited demand for this surplus hay, to say nothing of the number of Lehi men that find profitable employment in feeding and looking after the immense herds of cattle and sheep.

"In company with George Austin, who has general supervision of the stock, a *Tribune* correspondent visited the feeding pens Saturday. Although owing to the small amount of pulp in the beets this year there is less stock being fed, yet a person can form an idea of the importance of this business and its magnitude in ordinary crop seasons. There are about 500 head of cattle and 800 head of sheep. The cattle were driven overland from Nevada and came into the yard six weeks ago, thin and footsore from their long journey. To see them now, as they lift their heads and speed away across the yards at the approach of a man, you would hardly believe that such a radical change could have been effected in such a short time without feeding grain. But Mr. Austin asserts that not one ounce of grain has been fed; nothing but pulp and alfalfa. Even now it is possible to select a large number of steers that would make first-class beef, but as the company ships only in train-load lots the cattle will all be held until March 1. In adjoining yards about 750 head of spring lambs are being fed. As a diet for sheep, pulp has no superior, especially for old sheep that have lost their teeth. The softness of the pulp renders mastication unnecessary, and the sheep simply gorge themselves and fatten rapidly. The lambs that are in the yard at present were weighed in at an average of sixty pounds. Mr. Austin states that they will be able to show an increase of thirty pounds per head by March 1. It is hardly probable that this showing could be excelled by any kind of feed. The Lehi Feed and Stock Company also has a large number of cattle and sheep on this same feed, although it is possible that they will be compelled to feed some bran and shorts, owing to the small amount of pulp on hand, otherwise nothing but pulp and hay would be fed."—*Pecos Valley Argus.*

Mr. T. J. Shaffer, of St. Mary parish, was a guest of the St. Charles a few days ago.

Hawaii and Her Sugars.

WESTPORT POINT, Mass., March 21, 1898.

Editor Louisiana Planter: The United States Senate having smothered the Hawaiian annexation treaty, and the matter being now open for the passage of a joint resolution by Congress, good may result by a brief presentation of facts touching the existing treaty with Hawaii and the annexation question. This country has lost nearly \$100,000,000 of revenue from sugar, out of which the government has been jewed by specious interpretations of the Hawaiian treaty; thus vacuum pan refined sugars made from clarified syrup, and testing from 95 to 99 deg. pure crystals in the polariscope, are entered free of duty as raw sugars, such as were formerly made in Hawaii by cruder methods, and described in the treaty as "muscovado," brown and all other unrefined sugar, meaning thereby the grades of sugar heretofore commonly imported from the Sandwich Islands, and now (1875) known in the markets of San Francisco as "Sandwich Island sugars;" the treaty does not exempt the semi-refined vacuum-pan sugars, which are permitted entry duty free as raw sugars.

While, in my opinion, the treaty should long since have been abrogated, or so modified as to prevent the importation of high grades of sugar, far superior in pure crystals to the yellow refined sugars that are sold to consumers, I also know that the importation of high grade sugars duty free, under specious pretences, has been detrimental to American producers of sugar without the least benefit to consumers. The loss of said duty is a burden on the people, for which they receive no adequate return under existing conditions. Our trade with the Sandwich or Hawaiian Islands is the outgrowth of the enterprise of Boston merchants, who first sent ships and merchandise to those islands. The trade with Hawaii naturally belongs to this country owing to the location of the islands, and the facilities for trading with the islands, owing to natural causes, practically bar other nations from monopolizing the trade. Hence, the admission of sugar from those islands duty free was a blunder from its inception, our claims under the treaty being practically the same as those of Great Britain and Germany, for which those nations give no adequate trade return, while we have been paying the islands millions of dollars per annum for privileges that other nations have for nothing. In fact, if there is any good reason why this country should annex the islands it lies in the fact stated herein.

The classification of facts produces reliable evidence. United States statistics prove the give-away trade game this country has been playing with Hawaii for nearly twenty-three years, and need not be detailed here. In short, the country has quietly endured loss of revenue from semi-refined Hawaiian sugars outwardly colored to not above No. 13 D. S. in color, but of great purity, 95 to 99 deg. test in the polariscope, which sugars are allowed entry by color alone, and producers of sugar in the United States have made but puny efforts for the abrogation of a treaty that injures them as much or more than the admission of such sugars can possibly do if the Ha-

waiian Islands were annexed and became a territory or State of the Union. The evidence of facts is against the treaty as regards the sugar clause which practically governs the question of reciprocity with Hawaii. Annexation would give this country ownership and money expended by gift or for improvement in Hawaii would be expended on our own property, and not as now, be thrown away upon the islands practically for nothing.

Sugar producers in this country strenuously oppose annexation on the ground that sugar being the principal product of Hawaii would come in duty free and would injure or destroy the present home industry. As well might our wheat growers object to the admission of a wheat growing State; but the strangeness of the objection is that under the existing treaty Hawaiian sugars are admitted free and annexation would not change the existing condition a particle. It is reported in the press that a prominent leader in home beet sugar production issued a notice to sugar beet growers that if annexation occurred his factories would not pay more than \$3.50 per ton for beets; if annexation did not take place, \$4 per ton would rule, subject in either case to sugar contents of the beets. Little wonder that farmers refused to sign contracts to raise beets under such dictation. It probably occurred to farmers that Hawaiian sugars are admitted free of duty under the existing treaty and the evil could not be enhanced if the islands were annexed.

The contention that Hawaiian sugars would hinder production in this country is contradicted by the fact that such has not been the case under the treaty and would not be with annexation more than now. Sugar can be produced in Hawaii of the grades now imported free for less than 2 cents per pound, but the market price of such sugars in New York and San Francisco is based on the market price of cane and beet sugars of similar grade imported from other countries plus duty. The profit goes to Hawaiian planters and their agents and to the sugar refining company and their allies, hence our beet sugars are not specially affected by Hawaiian sugars, but to get better profits the cost of producing beet sugar in this country must be reduced and will be. This desired profit does not depend on the product of Hawaii, but upon progress in sugar making. What nature and cheap labor has bestowed on Hawaii in this regard must be equalized by the persistent employment of brains, capital and skill, aided by improved methods, wherein we excel and on which we must depend.

One most important point in this relation refers to the fears or pretended fears that the sugar product of Hawaii is likely to interfere with our progress if the islands are annexed. Setting aside the fact that under the existing treaty the condition as regards sugar is as bad as it can be, there are good reasons why the production of sugar in Hawaii has approximated the limit of her capacity of production in the line of sugar. Be that as it may, the demands of consumption in this country are at present far beyond our present capacity of production and increasing far more rapidly than our sugar production is at present in-

creasing. Hawaiian sugars are and will continue to be but a drop in the bucket compared with the demands of consumption. With the most rapid progress possible and with reasonable tariff protection, producers of sugar may increase a hundred-fold and still are not likely to reach, much less outstrip, the demands of home consumption for very many years to come.

The consumption of imported sugars free and dutiable entered for immediate consumption and withdrawn from warehouses for consumption in the year ended June 30, 1897, was 5,347,410,981 pounds, or 2,387,237 tons of 2240 pounds. Of this amount there was of Hawaiian sugars duty free 431,306,359 pounds, or 192,547 tons of 2240 pounds, from official reports. The production of cane and beet sugar in the United States in the year named was 740,007,400 pounds, or 330,356 tons of 2240 pounds, of which 289,009 tons were cane sugar and 41,347 tons of beet sugar, official report. Thus it appears that in the year named the total consumption of foreign and domestic sugar in this country was 6,087,418,381 pounds, or 2,717,593 tons of 2240 pounds; population the year named, 72,807,000 (official), making the consumption of sugar 83.75 pounds per capita in the year named.

Of the vast amount of sugar now annually consumed in this country, the imports from Hawaii are too small for home producers to worry over, and the enormous quantity required for consumption affords opportunity for the production of beet and cane sugar in excess of our enormous consumption. If the existing treaty with Hawaii can only be killed by annexation, sugar producers may accept annexation with equanimity.

HENRY A. BROWN.

We are sorry to see that our distinguished friend and consistent advocate of the development of a home-grown sugar industry in the United States should now have joined the Hawaiian annexationists. His logic is like that of a young woman who married a man to get rid of his importunities. His citation of the possible objection of the existing States to the admission of a wheat-growing State is not pertinent, as we are exporters of wheat and importers of sugar. We compete with the world in wheat, whereas we are trying to develop an American sugar industry, and ask proper legislation to bring about this result.

It isn't that Hawaii would produce so much more sugar than now, were she annexed, but we couldn't get rid of her, couldn't so easily secure a divorce, if she came into the Union, as we can perhaps now. We don't want any closer relation with Hawaii than now, and want the relation made more remote as soon as we can. We want the recipro-

city treaty abrogated and Hawaii relegated to her normal condition of an independent government without the onesided relations she now enjoys with this country.—[EDITOR LOUISIANA PLANTER.]

The Cambray Process of Double Sulphuring.

EL PUENTE, March 10, 1898.

Editor Louisiana Planter: I have the pleasure of handing you below, a table of analysis of the work in this cane sugar house by the Cambray process of double sulphuring, hoping that you will do me the favor of publishing the same in the columns of your valuable journal.

G. CAMBRAY.

DOUBLE SULPHURING: THE CAMBRAY PROCESS.

Analyses.

Date. 1898.	MILL JUICES.			SYRUPS.		
	Brix.	Sucrose.	Purity.	Brix.	Sucrose.	Purity.
Jan. 28	24.1	18.98	78.7	59.9	54.56	91.09
" 29	23.7	18.58	78.4	54.8	49.5	90.3
" 31	23.8	19.69	82.7	58.2	52.8	90.6
Feb. 1	24.4	20.38	83.5	55.2	50.38	91.26
" 2	23.5	19.77	84.1	56.4	51.6	91.4
" 3	23.5	19.46	82.8	56.8	52.25	91.9
" 4	23.5	19.74	83.64	56.4	51.8	91.84
" 7	24.75	20.88	84.3	56.8	51.5	90.6
" 8	22.35	17.97	80.4	58.6	53.5	91.3
" 9	24.4	19.7	80.7	58.8	54.1	91.8
" 11	23.9	20.	83.6	56.9	51.7	90.8
" 14	23.4	19.48	83.4	51.4	46.	89.4
" 15	23.8	19.46	81.7	55.	49.3	89.6
" 17	22.7	19.04	83.8	58.8	53.	90.1
" 18	23.85	20.12	84.3	61.2	56.5	92.3
" 19	23.7	19.8	83.5	59.6	54.4	91.2
" 22	24.2	20.04	82.8	57.9	52.	89.8
" 23	23.1	19.41	84.	58.5	54.	92.3
" 25	24.9	20.86	83.7	58.	53.3	91.8
" 26	23.66	20.	84.4	60.6	55.5	91.5
Mar. 1	23.5	19.90	84.6	61.	56.	91.8
" 3	24.5	20.63	84.2	60.7	56.21	92.6
" 7	22.35	18.31	81.9	62.1	56.76	91.4

AVERAGE MILL JUICES.

Purity.....82.87
Increase of purity.....8.33

AVERAGE SYRUPS.

Purity.....91.2

Curious Leaks in Juice Heaters.

NEW YORK, March 10, 1898.

Editor Louisiana Planter: I would desire to lead the attention of the sugar manufacturers working by diffusion process, to the losses in the juice heaters of the diffusion battery, which should not be underestimated.

By the existing vacuum in the steam partition of the heaters and the pressure of juice in the other part, there is a considerable loss of juice that escapes with the condensed steam, especially at the cell charged with fresh chips, and generally only there noticed when a considerable amount had been lost, the water in the boilers colored and the smell of burnt molasses observed all over the sugar house.

These leaks, only ascertained by the anaph-

tol reaction, are splits of hair breadth in the tubes, impossible to detect by steam even to a pressure of forty-five pounds (according to J. Schnell), because when the steam test is applied the tubes expand and close these splits tightly; the contrary takes place when cold juice passes the heater, the tubes contract and allow the juice to escape. Therefore, leaky heaters should always be tested with an hydraulic test pump and cold water to seventy-five pounds pressure.

I would recall an instance where I used to mark the heaters of a diffusion battery in which traces of sugar were found by the word "leaks;" the man in charge of the battery unscrewed the bottom cover, applied steam to ten pounds pressure, and, of course, could find no leak in the tubes, and felt that he had been troubled without cause, consequently the chemist did not understand his business, etc. Under the (word) mark "leaks" I found the sentence: "That's a d— lie."

After several days the split had naturally extended, the water of the condensed steam in the heater assumed the dark gray appearance of cane juice. I called the attention of the man again to the leak, and told him that he could now convince himself personally by testing the water. Well he found he was wrong in contradicting, and the mysterious sentence disappeared. C. A. ZIMMERMAN.

The German Sugar Bounties and British Refiners.

The British sugar refiners complain, with apparent justice, that the German export bounties are specially injurious to them, for whereas on 88 per cent. beet they are 1s. 3d. per cwt., they are 1s. 9d., or 6d. more on refined sugar. The German refiners reply that the extra bounty is absolutely no gain to them, and that on the whole the British refiners are, if anything, rather better off than they are. The calculation on which they rely is somewhat as follows: 88 per cent. beet yields 80 per cent. in refined sugar, which is exported at the bounty of 1s. 9d.; 8 per cent. of secondary sugar, which is exported at the bounty of 1s. 3d.; and 12 per cent. of molasses, which is kept at home and gives rise to no bounty. It will be found on calculation that these proportions would give an apparent advantage to the German (as compared with the British) of 8d. per cwt. This advantage more than disappears in practice, because through the way the bounty works in Germany itself, the German refiners have always to pay at least 3d. more for 88 per cent. beet than the British refiners pay for it. In addition, the German manufacturers maintain that their British rivals have a great advantage, in the ease with which some portion of the molasses can be worked off in pieces, etc. It is also argued in Germany that as our refiners have the practical monopoly of the supply of German raw beet, they have it in their own hands to arrange that they get a sufficient margin.

The strongest proof, however, that the German refiners have no advantage whatever in the relative bounty on raws and refined, is the

fact that they are very desirous of seeing the bounty system entirely abolished, believing that the increased home consumption, due to the decreased duty (which would follow the abolition of the bounty), would be far more advantageous to them. If the German refiners were gainers by the present system they would not be likely to take such a view on the ground of abstract political economy. It would certainly appear, if these German arguments are correct, that the 1s. 9d. bounty on German refined is not injurious to our refiners, while the 1s. 3d. bounty on raw beet is obviously advantageous to the latter, by giving them a practical monopoly of the cheapest sugar in the world. We simply repeat these statements as they reach us, and shall be glad to insert any information of a contrary character, if it can be furnished. The anxiety of the chief German refiners for the total abolition of the bounties shows, in any case, that there can not be much in the difference.—P. M. Review, March 12.

The New Rice Irrigating Plants in Southwest Louisiana.

The largest of the new canals is the Abbott-Duson, with a paid-up stock of \$42,000. It will water the Prairie Hayes country and will be able to irrigate about 8000 acres this year. About ten miles of the main canal will be completed this season and some eight or ten more next year, which will make the amount of land irrigated over 15,000 acres. The water is secured from Bayou des Cannes and is carried for three miles to the canal, which is 100 feet wide, where a second pumping station is to be established for a necessary relift. The main station is to be fitted with six 6x18-foot boilers, two Corliss engines, with 24-inch cylinders and 48-inch stroke, of 420 horse-power each, and six 18-inch double-suction improved Ivens pumps, with a total capacity of 90,000 gallons per minute. At the relift station there will be three 6x18-foot boilers, one Corliss engine, 24-inch cylinder and 48-inch stroke, and two 36-inch pumps.

The second largest canal is that of the Miller-Morris Canal Co., Ltd., which is now rapidly nearing completion, and which will have, including laterals, a total length of about twenty miles. The pumping plant is fitted with eight 80 horse-power boilers, four engines 125 horse-power each, and four 18-inch Ivens pumps, with a total capacity of 60,000 gallons per minute. It starts from Plaquemine bayou, just north of Estherwood, and runs in a general southerly direction. It will water from 8000 to 10,000 acres.

The Roller Canal Company, Limited, has absorbed the Bayou Blanc Canal Company, which last year irrigated a few hundred acres with a single pump. The canal is being enlarged and lengthened and the pumping plant added to. The new 18-inch Ivens pumps are to be put in, giving a total capacity of 45,000 gallons per minute. There will be three 6x16-foot boilers, and two engines with 18-inch cylinders and 22-inch stroke. It starts from Bayou Plaquemine at a point about two and a half miles west of Crowley, and runs in a

southeast direction to a length of about eight miles. It will irrigate in the neighborhood of 8000 acres this year.

The Ferre Canal Company, Limited, is one of the latest companies to be incorporated. The canal starts out of Bayou Quene-de-Tortue, at a point about three miles northwest of Daspit, and runs five miles in a general easterly direction. The pumping plant is to be fitted with two 18-inch pumps with a total capacity of 30,000 gallons per minute, two engines with 18-inch cylinder and 22-inch stroke, and three 6x16 foot boilers. This year it will irrigate 4000 acres, and next year it will be extended to twice its present length.

The Watertown Irrigation Company, Limited, is one of the largest private irrigation companies. Its canal will start from the Mermentau river, above Mermentau station, and will this year be in shape to irrigate about 600 or 700 acres. Next season its capacity will be enlarged.

In addition to these larger canals, there are a large number of small private pumping plants, irrigating from a single field up to several hundred acres, that can not be mentioned since it is almost impossible to keep the run of them. But on the whole it is safe to say that in Acadia parish there will be some 30,000 to 35,000 acres more under irrigation the present season than the past one.—*Crowley Signal*.

Diffusion in Egypt.

[Translated for THE LOUISIANA PLANTER from Centralblatt für Zuckerindustrie.]

In Egypt there are four sugar factories working by the diffusion process, of which one, Cheik-Faddl, works 1300 tons of canes per day. It may be here said also that sugar manufacture by diffusion without the use of some coal as additional fuel is done only in Beni-Korraha factory. This result, which has only been attained after very great efforts, is due in a large part to the rainless climate of Egypt. The Beni-Korraha factory belongs to some Copts who live like Arabs. This Arab administration has been one of the principal difficulties in starting the factory, a portion of it having been erected too late to work in any considerable way. The personnel of the establishment is rather bad and inexperienced with few exceptions. During the hours of prayer, the engines and the apparatus remain without surveillance in such a way, that it requires a large number of workmen to fill any given post. One need not be astonished, said my informer, if in each relay there were, for example, as in the motor engine of the diffusion apparatus, two engineers and two greasers. The factories situated further north in Egypt have very intelligent workmen and employ fewer persons for the same work.

Every six hours the workmen change and the relay go to bed in the factory. The greatest difficulty exists to keep everything in a clean condition. The workmen, Arabs, fellahs, Copts and negroes, are under the surveillance of natives. There are also some Germans, Belgians, French, Syrians and Greeks. In order to interpret there are four dragomen, of whom two are from the streets

of Cairo. One may readily imagine the surprises and difficulties that such a Tower of Babel might develop.

The railway for the transportation of canes was absolutely insufficient, and very often the factory stopped for the lack of canes. The building of the sugar house is high and spacious, and the disposal of the engines and the apparatus, with the exception of the diffusion, is very practical. A laboratory, very well installed, but which, unhappily, only arrived in the latter part of the campaign, is hence but a storeroom and repair shop. The sugar cane was one-third of the second year and two-thirds of the first year. They had as much white cane, yellow and green-yellow as of the red cane. The cane experiments were made with a hand mill of three rollers, through which the cane was twice passed. The mixed juice weighed from 14 to 22 Brix, with a purity from 70 to 89.

The better the cane the less the proportion of glucose and the less its acidity. The red cane is poorer in juice and richer in glucose than the other kinds of cane. The excellent method proposed by Pellet for sampling canes has not been used from lack of time. One great inconvenience is that the cane is brought to the factory with its top on, which contains about 4 per cent. of sugar less and double the quantity of glucose.

By reason of the rainless climate canes cut in December to February do not suffer when they are covered with leaves during the week of cutting. On the contrary, the warm months of March and April are very injurious to the cane.

The culture of cane is good in fields irrigated by steam pumps. The cane there is healthy and the crops are average. The cane cut is stripped in the field by children, the tops are cut off and then the cane is loaded on camels and transported to the railway cars.

In mill work, the canes promiscuously loaded give no particular trouble. On the contrary, for diffusion it is necessary that the stalks be very straight so that they may penetrate into the cane cutter hoppers. The crooked canes are broken for this purpose. From the wagons the fellahs carry the canes to the German cutting machines. This apparatus works well to the extent of 400 tons of chips of 3 millimetres per day, or 300 tons of 2 millimetres, or 200 tons of 1½ millimetres. Two cane cutters are operated. The chips are taken by a horizontal conveyor to the elevator, whence they are carried to another conveyor which operates the entire length of the battery. The battery is composed of sixteen cells arranged in two lines of eight cells each, receiving the chips by four hoppers. The diffusers are 1.56 metres in diameter, with iron bottoms 1.65 metres diameter, in order to permit the easy discharge of the cells. Each diffuser contains 2.5 to 2.7 tons of cane. The bottom joint is made by means of a rubber tube which has a water pressure of from 45 to 90 pounds. This pressure is obtained by the means of a little air pump. The water and juice pipes are of 160 millimetres exterior diameter.

The thicker the chips the fewer can be put into a cell. The extraction on the other hand

is worse, but the emptying is done more quickly. At the commencement of the work two diffusers having been defective in construction, they were obliged to work with fourteen. They were unable to say what would have been the extraction for a thickness of three millimetres and with sixteen cells. The chips of 1½ and 2 millimetres, and working 350 tons of cane per day of twenty-four hours, gave good extraction; the exhausted chips contained 4 per cent. of sugar and by digestion 3 per cent. of sugar.

The battery was heated with exhaust steam. The diffusion water, the water of the Nile, contained in December and January from 7 to 10½ milligrammes of salt, and in March 15.20 milligrammes of marine salt per quart and contained also a quantity of silt.

The temperatures of the diffusers, taking the average of various observations, was 34, 56, 78, 86, 89, 90, 90, 90, 86, 49, 34. The following diffusers were under air pressure in such a way that at the moment of discharge their contents formed a compact mass of chips pressed together. The circulation was maintained without difficulty and when the temperature reached 98 no difference was perceived.

When the battery was stopped for more than an hour an increase of acidity was noticed. The author often left the battery during twelve hours without emptying the diffusers, because of a lack of canes, and in leaving the cocks and the covers open found no difficulty in the subsequent work. The precaution was taken to put lime water in four diffusers.

Some experiments showed that the ash contained was not increased, or was but very little in the diffusion juice. From 50 to 55 litres of juice were drawn per 50 kilos. of cane. The juice averaged 12.5 Brix and .86 per cent. glucose. The purity showed an increase of 1 to 2 per cent. over that obtained in the laboratory with the hand mill.

The discharge of the exhausted chips was badly done in the beginning. The air accumulated between them, and when the diffusers were opened a compact mass was found which did not fall out. The diffusers were badly erected not sufficiently high above the floor and the gate could not hang down vertically. The compact mass is now discharged with forks; a chain is passed under, and to the songs of the workmen it is carried out of doors. It will require a long time to correct the defects in this construction, and to adapt to it the very singular means that can be availed of.

The horizontal conveyer that ran under the diffusers was changed, but it worked very well. For the present campaign the discharge is modified, and the chips fall out into an elevator and into a two-roller mill driven by a 125 horse-power engine. The rollers are held together by hydraulic pressure. These rollers, which had a defective arrangement, were to have pressed the chips to a certain degree of dryness, so that they could be used as fuel. They pressed well, but their bad position led them to again absorb the water from the chips. The author thinks that it is impossible to sufficiently press the bagasse from diffusion in those mills, whatever may be their construc-

tion, so as to make them burn well. Diffusion, then, can not be rendered practical with the advantages such as where they have wood or coal, and where the climatic conditions permit the drying in the sun of the green bagasse.

The furnaces would only burn fuel containing 42½ per cent. or less of water. The bagasse mill could readily compress the cane to this degree, but not diffusion bagasse, which contains still from 55 to 60 per cent. of water. It has been suggested that the drying of the bagasse might be improved by the heat from the boilers, but this would complicate the apparatus, increase the necessary capital and would not do it as well as the sun, which would do all this in a better way. The drying of the bagasse can only be done in the regions where the climate and labor permit.

Dry bagasse of 30 per cent. humidity burns in the furnaces. Those are arranged in such a way at Beni-Korrah that the pressed chips were brought by a carrier into the front two furnaces. Each of these furnaces heated two tubular boilers, each having 200 square meters of heating surface. By the side of these there was another tubular boiler of 200 square meters, with a coal furnace, but it had not been used other than in the first six weeks. The bagasse reached the furnace from above. The horizontal grate is fed from above and below by a pressure blast, a single blower answering for four furnaces. The bagasse is heated at once on the grate, then raised by the blast and burned the moment it arrives in contact with the hot surfaces. In this way bagasse of 46 per cent. water content is burned, but the condition of the fire should be good and the bagasse hopper kept closed. At the commencement of the season they attained with difficulty a pressure of from thirty to forty-five pounds, which was insufficient for the work, but later on they had a pressure of about eighty pounds, burning nothing but bagasse. Bagasse 30 per cent. water burns well without the blast and better than the cottonwood and corn stalks.

Notwithstanding Mr. G. Stade has affirmed that the bagasse suffices, theoretically, alone for the production of steam, this might be exact, but not in practice. One might supply it by an allotment of cane leaves to be brought in from the factory fields by camels. In operating thus one might obtain without coal all the pressure necessary to the factory—that is to say, for 400 tons of cane every twenty-four hours and for every 800 square meters of heating surface.

The leaves require four or five days to become dry on the earth, but they have the inconvenience of leaving much cinder and to require the relay of three men to remove the residue. When one has fired with leaves it is necessary to employ a movable grate in the middle in order to let the ashes escape. The fire made by leaves is quick, the flame is long and there is no need of a forced draught. The section of the flues and the chimney ought to be large and the manhole ought to be arranged to permit daily cleaning. At Siout for 400 tons of cane it costs for bringing in cane leaves and for drying the bagasse 150 to 175 francs per day.

Notwithstanding that the dry diffusion bagasse and cane leaves will suffice to produce the necessary steam, it is certain that this process can be employed in very few cane colonies. The humidity which remains in the chips after double pressure, 55 per cent. of water, is difficult to remove by mechanical means. The sun, however, does this usually, and where it rains one can suppress the double pressure and dry the chips in any kind of a battery. This is more economical than to employ steam to drive the mills.

The juice drawn from the diffusion battery passes in a rotary pump and is measured. At the commencement it is limed in one of the tanks to the extent of .18 kilos. of quicklime per 100 kilos. of cane, but as this presented some difficulties the old clarification was returned to. An attempt was made to sulphur the raw juice in the measuring tanks. The diffusion juice of 12.5 Brix after sulphuring had a clear yellow color. Heated to 75 and defecated, it limed to alkalinity .015 it gives after a rapid defecation a very brilliant juice which filters quickly. The raw juice ought to be sulphured cold to prevent the rapid increase of the invert sugar.

In general sulphuring is not done in the measuring tanks, but the measured juice is heated at once at 50 deg. in the juice heaters, then returned into the boilers for the defecation, where it is neutralized with lime and heated to 85 deg. The cooler juice then flows out into the sulphuring tanks situated below. The scums were deposited in decanters, where they were reheated and driven at a pressure of 15 to 35 pounds through four filter presses. The scum press is filled in six to twelve hours. The dry cakes have a thickness of 50 millimetres, giving 433 kilos. per press, or 28 per cent. of scum. This scum includes an average of 6.8 per cent. of sugar, 3 of glucose and 22.5 of ash. The dark yellow juice coming from the presses is clear and bright and passes into the sulphuring tanks. These tanks are furnished with steam coils and sulphur coils. The sulphur acts during five minutes, then the juice is heated, the scum rises and the clear juice is run into a Philippe filter of two square metres. For 100 tons of cane it requires 1½ Philippe filters. The juice is now clear and brilliant. There is no increase of glucose if the work be continuous. The juice leaves the filter at 95 and is sent to the quadruple effect.

The multiple effect has 800 square metres of heating surface with heaters of 120 square metres for the raw unfiltered juice. The first pan is heated by exhaust steam to which is added a little direct steam. A central air pump gives a vacuum of 69 centimetres in the four pans.

The syrup is boiled in a vacuum with no other filtration. For large grain they boil at 60 centimetres vacuum and for fine grain at 65 centimetres. The first molasses is at once sent back to be worked in with the syrup and next into seconds. The first masse cuite is sent to two open mixers, giving about 50 per cent. in sugar of 96½ to 98½ polarization. A prolonged working in the mixer gives an inferior sugar, difficult to work in the centrifugals.

The second sugars remain twenty-eight hours in tanks one meter deep, and give after centrifuging a fine sugar of a color varying from brown to brown yellow of 90 to 91 polarization, and containing from 3.5 to 3.8 per cent. glucose, which is consumed by the fellahs. The molasses is then distilled into rum. Neutralization of the first molasses by lime is not authorized by the buyers of the low products.

First sugars from 8½ to 9 per cent. of the weight of the cane is obtained and 1.7 per cent. of the second sugars. These yields, however, are not exact, for the weight of the cane was not often determined excepting by the diffusers. Of molasses they obtained about 3 per cent. of the weight of the cane. At the commencement they produced about 1500 tons of azal, or syrup of 34 to 36 Baumé, which was sold, especially during the feasts of Ramadan. Some 200 tons of cane gave a greater value by 150 francs than the same quantity worked into sugar. The defecation of this azal is different from that described above, inasmuch as when the limed juice is heated the scums are separated at the end of thirty minutes. The buyers do not want sulphured syrup, but it was easy to circumvent them. The unsulphured juice is difficult to filter and the four Philippe filters would not have sufficed for working 150 tons. The azal is cooled, put in high bottles, corked with a piece of cane and the Nile mud and subjected to the sun for ten or fifteen days in the field under a careful surveillance in order that it may submit to a sort of fermentation. The taste recalls that of honey, which the azal replaces. An attempt has been made to produce azal of second quality with the first molasses operating as follows: The first molasses diluted to 28 to 30 is sulphured, and milk of lime then added, bringing it to a low alkalinity. It is highly heated, filtered and boiled to 34 to 36 Baumé. This azal has a reddish brown color, but the taste is good.

Mr. R. H. Sprague and Mrs. Sprague, of Adeline plantation, were Wednesday visitors at the St. Charles.

Col. J. P. Kearney, of Belle Chasse plantation, on the lower coast, was a guest of the Royal during the past week.

Mr. James P. Buzzi, the well-known sugar boiler, had charge of the pan this season on the Golden Ridge plantation, and acquitted himself in a way to win the highest encomiums.

Mr. Frank J. Webb, of the Baton Rouge Sugar Company, Baton Rouge, La., was in the city on a visit a few days ago and registered at the St. Charles Hotel.

Messrs. L. and J. L. LeBourgeois, of the parish of St. James, were in New Orleans last Saturday, residing at the Cosmopolitan Hotel during their stay.

Mr. Carroll Barton and Mrs. Barton, of Magnolia plantation in Assumption parish, were in the city on a visit a few days ago, and registered at the St. Charles Hotel.

Mr. R. R. Barrow, of Houma, near which place he possesses extensive sugar interests, was a recent visitor to the city, registering last Monday at the Grunewald.

MARCH 26.

WEEKLY MARKET REPORT.

1898.

SUGAR.	March 19.	March 21.	March 22.	March 23.	March 24.	March 25.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 @ 3 1/2	Quiet.
Strict Prime	— @ —	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	2 3/4 @ 2 1/2	
Prime	— @ —	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	2 3/4 @ 2 1/2	
Fully Fair	— @ —	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	2 3/4 @ 2 1/2	
Good Fair	— @ —	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	2 3/4 @ 2 1/2	
Fair	— @ —	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	2 3/4 @ 2 1/2	
Good Common	— @ —	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	2 3/4 @ 2 1/2	
Common	— @ —	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	2 3/4 @ 2 1/2	
Inferior	— @ —	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 2 1/2	Dull.
Centrifugal.								
Plant'n Granulated	4 3/4 @ 4 1/2	4 3/4 @ 4 1/2	4 3/4 @ 4 1/2	— @ —	— @ —	— @ —	— @ —	
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 1/2 @ 3 3/4	
Choice White	4 1/2 @ 4 3/4	4 1/2 @ 4 3/4	4 1/2 @ 4 3/4	— @ —	— @ —	— @ —	3 1/2 @ 3 3/4	
Off White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow	— @ —	— @ —	— @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	8 3/4 @ —	
Prime Yellow	4 1/2 @ 4 3/4	4 1/2 @ 4 3/4	4 1/2 @ 4 3/4	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	8 3/4 @ 3 3/4	
Good Yellow	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 3/4 @ 3 3/4	Quiet.
Seconds	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	
MOLASSES.								
Open Kettle.								
Fancy	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Strict Prime	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Good Prime	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Prime	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Good Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Good Common	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Common	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Inferior	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugal.								
Fancy	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	Quiet.
Choice	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 18	— @ 9	
Strict Prime	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 8	
Good Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 7	
Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 6	
Good Fair	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 6	
Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 5	
Good Common	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 5	
Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Dull.
Centrifugals, 90	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.22 @ —	
Standard A.	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.10 @ —	
Cuba, 90, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 0d.	Quiet.
A. & G. Beet	9s. 1 1/2 d.	9s. 0 1/2 d.	9s. 0d.	9s. 0 1/2 d.	9s. 0 1/2 d.	9s. 0 1/2 d.	9s. — d.	Dull.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 4 1/2	Strong
Powdered	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 5 3/4	— @ 4 1/2	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Mar. 16	Tons	257,789
At four ports of Great Britain to	Mar. 12	"	78,000
At Havana and Matanzas to	Mar. 16	"	102,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MARCH 25, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	603	11,970	2,528
Sold	603	11,546	2,528

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO MARCH 25, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	21,048	1,850,527	178,215
Sold	21,048	1,825,549	178,215
Received same time last year	38,296	1,165,708	218,589

MARCH 26.

WEEKLY MARKET REPORT.

1898

RICE.	Mar. 19.	Mar. 21.	Mar. 22.	Mar. 23.	Mar. 24.	Mar. 25.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, 100 bbl.....	2 00@4 25	2 00@4 25	2 00@4 25	2 00@4 25	2 00@4 25	2 00@4 25	2 00@4 25	Strong.
CLEAN, Fancy.....	5 1/2@5 1/2	5 1/2@6	5 1/2@6	5 1/2@6	5 1/2@6	5 1/2@6	5 1/2@6	
Choice.....	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	
Prime.....	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	4 1/2@5	
Good.....	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	
Fair.....	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	Stron .
Ordinary.....	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	3 1/2@4	
Common.....	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....	1 1/2@2	1 1/2@2	1 1/2@2	1 1/2@2	1 1/2@2	1 1/2@2	2 @2 1/2	
BRAN, 100 ton.....	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	12 00@—	
POLISH, 100 ton.....	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	17 00@18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAR. 25, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received.....	4,228	79
Sold.....	4,584	1,487

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO MAR.
25, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	444,999	8,580
Last year.....	374,841	8,382

Sugar.

At the end of the week the local sugar market was quiet. The receipts from plantations were fair, and the demand was sufficient to absorb the offerings.

Molasses.

No open kettle goods in first hands. Centrifugals strong.

Rice.

The rough rice market was strong at the end of the week. Offerings of rough rice were light and the demand was very good. Clean was steady, with a good demand and moderate offerings.

Sugar in London.

The recent dullness in the market was supposed to be due to the expectation of heavy tenders of beet sold for March delivery; but although as a matter of fact, these have proved exceptionally light, the market has not moved in either direction. The real cause of this inactivity is apparently the lack of support from the trade, the demand for actual sugar having fallen off very markedly of late, while the absence of speculative business is caused by the uncertainty of the future. Continental holders are loath to sell at the present barely remunerative prices, with the additional possibility of all calculations being upset by the result of the Sugar Conference, which is arranged to be held during the present month. So far as the position of the article is concerned, it looks as strong as ever, particularly in Europe, the visible supplies being no larger than they were two years ago. American stocks show a slight increase, but this may be due to the possibility of complications arising between Spain and the United States, and a consequent desire to hurry forward shipments of sugar from Cuba. The weekly receipts in the latter island continue heavy, but it is still supposed that the crop will shortly be completed instead of running on into June. There has been an improved inquiry here for low brown cane sugar,

and the market has been cleared of some descriptions at fully steady prices, while as regards grocery sorts the demand continues slow, but values are well maintained for the small supplies available. The cheapness of some kinds of London Yellow Crystals has exerted an unfavorable effect on the deliveries of crystallized raws of late, but until larger stocks of the latter have been accumulated there is no possibility of meeting this severe form of competition by a return to lower prices. There were no imports of crystallized raws to London for the week ending 3d instant, the total for this year remaining 5088 tons, against 5862 tons in 1897.—*P. M. Review*, March 5.

Sugar in London.

In consequence of some weakness shown in the American markets, and of greater pressure to sell forward deliveries of beet on the part of continental holders, speculative quotations have given way to some extent. Unfavorable views have been taken of the receipts of sugar in the States and in Cuba, but the same possibility of political complications continues, and may be regarded as a sufficient explanation of the prevailing quietness. The same deficit in stocks is shown, and, indeed, has grown larger as compared with last year's figures, while the first authentic intelligence of the sowings of the next beet crop points to a slight reduction in acreage rather than an enlargement. It can safely be said, therefore, that apart from a disposition on the part of speculators to sell "paper," nothing has occurred to upset the previously conceived opinion that the position of sugar is both sound and safe from a dealer's point of view.—*Produce Markets Review*, March 12.

**Additional Duties on Sugar Imported
from or the Product of France.**

THE TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
WASHINGTON, D. C., March 10, 1898.

To Collectors and Other Officers of the Customs:

It appears that under the operation of the law of France now in force sugars produced in and exported from that country receive, in addition to the direct export bounties specified

in Department Circular No. 153, of September 22, 1897, indirect bounties in the following amounts:

Sugars receiving direct export bounties of 3.50 francs, 4.00 francs and 4.50 francs per 100 kilograms, receive indirect bounties of 5.87 francs, 6.48 francs and 7.29 francs per 100 kilograms, respectively.

The countervailing duties to be assessed on such sugars under the provisions of Sec. 5 of the act of July 24, 1897 must therefore be equal to 9.17 francs, 10.48 francs and 11.79 francs per 100 kilograms, respectively.

L. J. GAGE, Secretary.

Personal.

Hon. W. E. Howell, of Lafourche parish, was a recent visitor to the city. Mr. Howell stopped at the St. Charles on Sunday.

Mr. C. W. Bocage, a prominent planter of Houma, registered at the Royal at the beginning of the week.

Mr. Edmund McCollam, of Terrebonne parish, was a guest of the St. Charles on Tuesday.

Gov. H. C. Warmoth and Mrs. Warmoth came up to town on Monday and put up at the St. Charles, which is their usual stopping place.

Mr. O. M. Nilson, of Perry, La., near which place he is erecting a large central factory to grind the cane of the Vermillion parish farmers, and bring prosperity to that fine section of country, was in the city on a short visit during the past week. Mr. Wilson stopped at the Hotel Grunewald.

Mr. J. Numa Thibaut was the manager of the vacuum pan on Mr. Leon Godchaux' Elm Hall place during the past campaign. Mr. Thibaut seems to be one of the fixtures at Elm Hall, and doubtless he is the right man in the right place.

We received a very pleasant visit during the past week from Mr. Thomas Cranage, president of the Michigan Sugar Company, of Bay City, Mich. The Michigan Sugar Company will be an up-to-date plant, with a capacity of 350 tons of beets per day, and will add considerably to the lustre of the rising beet sugar industry. Mr. Cranage is an exceedingly well informed gentleman, and after thoroughly posting himself on the sugar industry believes it is a good thing to invest in.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop, best of reference and satisfaction guaranteed. H. J. SAVOY, Palacourville, La. 3-18-98.

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. F. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EX- perience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—A PLANTATION BLACKSMITH, wheelwright and carpenter; must be married and sober; to the right kind of energetic man steady employment; Milly plantation. LEBLANC & DANOS, Plaquemine, La. 3-10-98.

WANTED—A PLANTATION HOSTLER, sober and capable; must be married; steady employment to the right kind of man on Milly plantation. Address LEBLANC & DANOS, Plaquemine, La. 3-10-98.

WANTED—SUGAR CHEMIST DESIRES PO- sition at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CHIEF ENGI- neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—EXPERIENCED GERMAN AGRI- culturist, beet sugar culture a specialty, desires position; best references. Address Box 309, Irvington, New Jersey. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Plety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 33 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; the best of references. Address EXPERT, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2432 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2620 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT EN- gineer; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louisiana street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98

WANTED—A GOVERNESS' FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La.

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address GOTTLIEB KOELLE, 1938 St. Louis street, city. 1-21-98

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBER, Central, La. 1-20-98

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. MCCRACKEN BROS., Kola La. 1-20-98

WANTED—POSITION AS STORE OR BOOK- keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address MAX, P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR AS- sistant engineer; has had fourteen years' experience and can furnish first-class references. Address F. O. W., Lareauville P. O., La. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-18-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. GEO. H. DOUGLASS, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTA- tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address P. O. BOX 422, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. Franklin street, city. 1-13-98.

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT SUGAR boiler for crop of 1898, by competent man. Address COMPETENT, Box 649, New Orleans. 12-21-97

WANTED—POSITION AS ASSISTANT MAN- ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97

WANTED—A SITUATION AS FIRST-CLASS overseer for 1898; can furnish recommendation from the best planters of the State. Address E. O. W., Houma, La. 12-30-97

WANTED—SITUATION BY A GERMAN- Swiss gardener, who understands thoroughly flower and vegetable gardening, city or country; good references on hand. Address A. B., 618 St. Louis street, city. 12-28-97

WANTED—A POSITION AS OVERSEER, BY an experienced, energetic and sober young planter; At references furnished. Address C. LAURENT, Whitecastle, La. 12-28-97

WANTED—ENERGETIC AND STRICTLY SO- ber young man wants position as manager of small store on plantation, on salary or commission; gilt-edge reference as to ability and character. Address B. B., 1925 Bayou Road street, New Orleans, La. 12-28-97

WANTED—FOR NEXT SEASON, A POSITION as manager of a sugar plantation by an overseer with fifteen years' experience. Can furnish best of references. Address W. T., care Daily Journal, Plaquemine, La. 12-23-97.

WANTED—ENERGETIC AND STRICTLY sober young man wants position as manager of small store on plantation; salary or commission; gilt edge references. Address B. B., 1925 Bayou Road, New Orleans. 12-17-97

WANTED—A FIRST-CLASS PAINTER, AC- customed to country and plantation work, would like to obtain work either by the day or contract. Address BRUNO, 863 Baronne street, New Orleans, La. 12-15-97

WANTED—A POSITION AS OVERSEER ON A sugar plantation, by a young man who has had long experience, and can furnish good references. Address R. V. H., 129 Decatur street, New Orleans.

SWIFT & CO.

Blood and Bone Brand.

The best Corn Fertilizer ever used in the South. Analysis: 10% to 11% Ammonia; 18% to 20% Bone Phosphates; 9% to 11% Phosphoric Acid; Potash traces.

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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AND

SUGAR MANUFACTURER,

OFFICIAL ORGAN OF THE

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Ascension Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.*

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BY THE

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ical, Political and Commercial.

EDITORIAL CORPS:

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LOUISIANA PLANTER, 339 Carondelet Street, New
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American Beet Sugar.

Perhaps the handsomest literary contribution to the American beet sugar industry is the recent publication under the above title of a work by Mr. William H. Holabird, of Los Angeles, Cal. In a beautiful pamphlet of some sixty pages he gives instructions concerning the field work of the sugar beet from seed time to harvest, with full illustrations of a model beet sugar factory and explanatory notes. The book is handsomely illustrated, and among others gives a fine picture of Mr. E. H. Dyer, the pioneer beet sugar manufacturer in America, the first one to make the industry an industrial success. The Louisiana visitors to the Industrial Congress held in Chicago in May, 1884, will recall Mr. Dyer as a visiting delegate to the same congress, representing at that time the beet sugar industry of California.

Another handsome picture is that of Mr. Thomas R. Cutler, the promoter and manager of the Utah Sugar Company, at Lehi. Mr. Cutler's good judgment and ample means, together with a long experience in the sugar industry and distinguished ability of the Dyers, resulted in making the Lehi factory a success from the start and a notable success from the fact that it was the first beet sugar factory in the world to successfully introduce the production of sugar beets with irrigation. Another portrait is that of Mr. William A. Clark, president of the Los Alamitos Beet Sugar Company, and also one of Mr. J. Ross Clark, vice president and manager of the same corporation. These gentlemen invested a million dollars in the Los Alamitos sugar house and adjacent lands, and are now arranging for a large increase in the capacity of their works.

Mr. Holabird places the farming community of the United States at 30,000,000 persons, men, women and children, and he believes that the successful establishment of an American sugar industry saving to the country the expend-

iture of a hundred millions annually in the purchase of foreign sugars and developing another grand staple crop that can be readily produced at home is a mission in which all good men should join and aid as far as they can.

The book gives a number of views of Lehi and Los Alamitos sugar factories and brings out in exceptionally fine style the massive machinery used, including the circular, diffusion batteries, the extensive filter press plant and the immense quadruple effects and splendid vacuum strike pan. A notable feature is the use in the Los Alamitos factory of a number of crystallizers, used for crystallizing in motion the low stuff that is ordinarily crystallized in tanks and wagons, which is now attracting considerable attention in Louisiana owing to the admirable device recently invented by Mr. E. P. Eastwick, Jr., and recently discussed before the Louisiana Sugar Planters' Association.

An ingenious device for loading cars from wagons by the use of a net spread within the wagons, the team then pulling the whole net load of beets into the adjacent cars, is very effectively illustrated.

Mr. Holabird believes that America leads the world, and, with that modesty which is characteristic of all good Americans, he says:

"It is the writer's intense belief that America is for Americans. That whatever they undertake they do well; that the ultimate destiny of the United States is so far beyond the conception of the careless thinker that pleasure has been taken in proving that so far in making the most intricate, the most perfectly adjusted, machinery demanded by an industry more exact than almost any other in the world, we lead rather than follow the bright chemists and mechanical engineers of Europe. In fact, study American machinery as you choose, her vehicles, her mining machines or agricultural implements, or her technical works in steel, copper or sugar, and we lead the world."

A Sugar Factory in Central Florida.

In this issue of THE PLANTER there will be found an advertisement of Mr. C. Irving Page, of Auburndale, Fla., announcing the fact that responsible parties in Central Florida, owning some 3000 acres of first-class sugar cane land, will contract to plant the land in cane and sell it to a central sugar factory for a term of years, satisfactory conditions being arranged.

We understand that the conditions under which it is proposed to produce the cane for this factory are in no wise similar to those which prevented Mr. Disston's enterprise in Florida from becoming a success. The lands are not muck lands, but good, solid hammock, and produce sugar cane of high test. Parties interested will do well to correspond with Mr. Page concerning the matter.

Burmah Rice Crop Prospects.

We are in receipt of advices from Calcutta to February 24. The summary of the district officers' reports on the rice crop prospects on the 31st January, 1897, in the fourteen chief rice producing districts of Lower Burmah shows that the total area under paddy cultivation is now reported as 5,594,279 acres, or 65,442 acres more than the estimate given last month, and 370,217 acres more than the actuals of last year. Reaping completed and threshing in progress. It is now estimated that there will be available for export 1,930,000 tons of cargo rice, equivalent to 32,711,900 cwt. of cleaned rice.

The Crop Situation.

Rain, which was generally needed, fell throughout the sugar district during the past week, but it would have been more beneficial if it had not been accompanied by a temperature somewhat too low for the season.

While germination has been scarcely fostered by the cool wave, the cane appears to be prospering very well, with the exception of some portions of spring plant, which is coming up in a more or less gappy fashion, giving rise to suspicions that the very wet weather prevailing during the major part of the planting season has caused some rotting of the planted cane. In general, however, the situation is good, and the crop promises to be a large one.

Secretary Wilson Wants a Man.

The following amusing incident is reported as occurring in the rooms of Secretary Wilson at Washington one day recently:

"A young man who graduated at one of the Eastern colleges last summer called with a letter of introduction from the senator from his State, in search of a position, and explained that as he had been raised upon a farm and had a practical knowledge of agriculture, backed by a classical education, he thought that he was capable of filling almost any position in the department. The secretary was glad to see him and told him that he thought he could give him a position at once.

"I want a man," he said, "who is up in soil physics, and if you have mastered that branch of agricultural science I will appoint you with a salary of \$1000 a year at once."

"What is soil physics?" inquired the young man.

"It is the science of soils. It is necessary for the man who takes this position to know all about the chemical composition of the soils of different localities, their capacity to absorb and retain moisture and the amount of moisture required by each kind of soil to produce the best results in different plants. Certain kinds of plants require more moisture than others, but it depends largely upon the character of the soil, and I want a man who is fully posted to take charge of a division here."

The young man said that he did not feel capable of undertaking that job.

"Perhaps you understand the bacteriology of milk?" suggested the secretary, and the chemical composition of the different kinds of cheeses?"

"No," replied the candidate, "I have never studied that line of agriculture; but I suppose I can learn."

"Yes," said the secretary, "any bright young man with your previous advantages can learn, but I can not wait for him to be educated. I want him to-day. And I have just received an inquiry from the University of Colorado for a competent teacher in botanical biology. Could you fill such a position?"

"I'm afraid not," replied the young man, with a sad smile.

"I'm sorry," returned Secretary Wilson, "Like many other young men who come here for positions, you seem to have a good deal of learning that you don't need, and lack the practical knowledge that would make you useful to us. I advise you take a course in agricultural chemistry and agricultural economy, and then come and see me again."—*Wallace Farmer.*

Trade Notes.

Charbon.—With the arrival of warmer weather arises the danger of outbreaks of charbon among cattle, horses, mules, sheep and even goats that graze in pastures where the germs of this disease exist; that is to say, in such sections of the country where deaths from charbon have occurred in former years. The serious epidemic of charbon that occurred in Louisiana and adjoining States during the summer of 1896 is no doubt still fresh in the

minds of our readers. It will also be remembered how the disease was mastered by the free use of the Pasteur Vaccine, for though the losses were heavy, yet there is no doubt, in the light of experience, but that these losses would have been ten times greater if preventive vaccination had not been largely practised.

Last year a vast number of planters and stockowners vaccinated their animals early in the season, and in this way probably prevented any repetition of the experience of the previous year. Nevertheless a few outbreaks occurred among unvaccinated stock, but they were promptly controlled by resorting to the Pasteur treatment. The wise heads are now beginning to vaccinate, and in this way to protect themselves against the probable outbreaks later on; for Pasteur long since established the fact that the germs of charbon live in the soil for many years ready to break into activity at any opportune moment.

When it is borne in mind that the Pasteur vaccine costs but a few cents per head, it will be seen that it is cheaper to vaccinate one hundred head than it is to lose even a single animal.

We would recommend those of our readers who are interested in the subject to communicate with the Pasteur Vaccine Company, whose headquarters in America are located at 54 Fifth avenue, Chicago. Preventive vaccination has been repeatedly recommended not only by the experiment stations and authorities charged with the care of live stock interests in many States, but also by the Department of Agriculture at Washington. The value of preventive inoculation for certain diseases, particularly charbon, is now well established. As a matter of passing interest it may be mentioned that during the last two years over 500,000 head of cattle have been successfully treated with the Pasteur Vaccine for preventing black leg. Black leg is classed in the same group of diseases as charbon, but is due to a slightly different germ, and is therefore prevented by its own especial vaccine.

Machinery for Sale.—Elsewhere in this issue we publish the advertisement of the J. H. Meeker estate, in which they state that they have for sale two batteries of boilers and a Deming superheater. They desire to dispose of the apparatus, because the capacity of the factory is being materially increased, and it is all in excellent order and did good work last season. They have also several pumps for sale, and all our readers who are on the lookout for any such equipment at a cheap price will do well to address the estate of J. H. Meeker, Meeker P. O., Rapides parish, La.

Col. W. N. Price, of the Arcadia plantation in Lafourche parish, was in the city on a visit a few days ago.

Mr. L. L. Lambert was still to be found at his post as manager of the St. Louis plantation during the recent campaign, and made everything work shipshape as is his custom.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: A little rainy spell, followed by a decidedly cool wave, have been the most prominent features of the weather record of the past week. There wasn't as much rain as the planters desired and the crop needed, but small favors in this respect are thankfully received, with hopes of greater ones to follow. There is more cold than we care for, and no little apprehension has been felt in the past twenty-four hours that the frost line might be reached, but the prospect is somewhat better as this chronicle closes, and Local Observer Park, who is accepted as something of an oracle on these matters, tenders the comforting assurance that the temperature is not likely to descend to a hurtful point at this time. The mercury was at 54 deg. last evening two hours after sundown, and got down to 44 later in the night, touching 48 at 8 o'clock this (Thursday) morning, and 56 at noon.

The river is twenty-one feet above extreme low water mark and rapidly rising. Mr. Park predicts a stage of twenty-eight feet from the coming freshet.

No further disturbing reports concerning the condition of the sprouting cane have reached me, and the prevalent impression is that, with a small percentage of exceptions, the state and prospect of the coming crop is most encouraging. Mr. Edward Godchaux, with whom I had the pleasure of holding a long conversation last Saturday, expresses the opinion that the cane fields along Bayou Lafourche present a more advanced stage of vegetation than those on the river. He reported the outlook at Elm Hall and throughout that section of Assumption as exceptionally fine.

An important transfer of Ascension sugar lands took place this week, Mr. Francis Falcon being the vendor and Messrs. Meyer and Ferdinand B. Lemann the vendees. The property consisted of a tract or plantation containing about 200 arpents situated in Brule Sacramento, bounded by the Palo Alto, Evan Hall and Souvenir plantations, most of which has been cultivated for several years by Mr. Falcon, who sold his cane to Palo Alto factory. The purchase price was \$15,846.18 cash, Mr. Meyer Lemann acquiring a seven-twelfth share and Mr. F. B. Lemann a five-twelfth interest.

Young Mr. Haydel, son of the new owner of the Gem plantation, is on the place directing the cultivation of the incipient crop.

Mr. Ed. B. Clapp, the well-known young engineer, who stands near the top of the ladder as to capacity, has accepted a position as traveling representative of an oil company, and will try his hand a while at drumming. He is a gentleman of excellent address, and ought to succeed finely in his new field of labor.

Next Tuesday will be Ascension Branch of the Sugar Planters' Association day, and an effort will be made to muster a quorum. President Henry McCall has been extremely busy of late, but will no doubt be on hand, in which

event a quorum is more than likely to be secured.

Dr. W. P. Miles, president of the Burnside Gun Club, whose shooting sobriquet is "Robin Hood," has offered a series of three medals to be contested for by the members of that organization, the contestants being divided into three classes—A, B and C, for the purposes of the competition. The best shots are grouped in class A, the next best in class B, and the poorest in class C. To those familiar with his skill with the gun, it is not necessary to remark that the name of this scribe ornaments the C class, and the only reason it isn't further down the scale is that there isn't any lower grade. The match is to consist of ten shoots, one each Saturday, for ten weeks, and much interest will no doubt be aroused in the event.

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been favorable this week, although at this writing it is rather cool. A fine and much needed rain fell in the upper part of the parish last Thursday morning, and will help the plant cane and the corn, both of which are coming up splendidly. There is still considerable complaint about spring plant, and in nearly every case the trouble is thought to arise from the fact that the seed cane was windrowed too early. Labor was scarce last year at the beginning of the rolling season, owing to quarantine, and quite a number put down their seed early fearing a cold snap might catch them short of labor, when they would not be able to get it in. The fall plant and the stubble is all that could be desired.

Sugar house work is starting in early, and carpenters and mechanics are in demand. At Rebecca plantation of Messrs. A. Adler & Co., the rollers are being turned. The coal for the coming season has been received and is being hauled in. Such also is the case at the Evergreen plantation of Mrs. H. H. Baker close by.

Mr. George W. McFall, formerly of this parish, will manage the Myrtle plantation for Messrs. Frederick & John Wilbert. Mr. McFall is a clever gentleman and a manager of signal ability.

The cane from the Chatham plantation of Messrs. V. & J. A. Berthelot will be rolled at the Old Hickory sugar house this year, the capacity of which will be considerably increased.

The committee representing the interests of parish draining into Bayou Plaquemine, called on Major Quinn last week and were pleasantly received. An opportunity will be given the the town of Plaquemine, and that part of the planters to intercept the deposit, which causes all the trouble.

Mr. Eugene Jay, of Island P. O., proprietor of the Maryland plantation, has turned the better part of his place into a stock farm, and informs us that he is succeeding very well. Mr. Jay had the misfortune to break one of his legs a short while since and is in consequence confined to his bed, but hopes soon to be able to get about in a buggy. The cattle

business has in a small way been successfully carried on in the upper part of the parish, and from the Grosse Tete section two car loads of cattle were shipped to Texas this week.

The lands and mills formerly belonging to the Plaquemine Lumber and Improvement Company, Limited, have been sold to the Plaquemine Land and Lumber Company, Limited, a new company that promises to have the big saw-mill at Indian Village running by tee first of June. Among the lands is the Indian Village plantation, which at present is devoted to cotton.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: The weather during the past week has been simply wretched, cold, damp and disagreeable generally, and plantation work has been prosecuted under disadvantageous circumstances. The warm, spring-like weather that had prevailed during the greater portion of March gave way last Monday to a decided change, the wind veering to the northwest and bringing an untimely cold spell which still prevails at this writing (Thursday morning), when the thermometer at 7:30 o'clock registered 46 deg. Under the influence of this cold spell vegetation has remained practically at a standstill, the ground being too cold and wet to permit germination.

Information gleaned from planters in different sections of the parish during the past few days is not so cheering as that sent you last week. Fall plant and stubble remain in good condition and very promising; but complaints are coming in to the effect that spring plant is in some cases turning out badly. Several planters state that the seed cane when put in the ground was in good condition, but that much of it has since rotted, due, probably, to the excessive rains that have prevailed since the second week in January.

It may be, however, that favorable conditions later on will bring out much of the seed that now seems so unpromising.

Chief Engineer Sammons, of Cinclare, will leave for the North in a few weeks in quest of more machinery for Mr. Laws' magnificent factory. Another vacuum pan will be added to the plant, while the electric cane hoist will be so improved as to permit the loading of the cane on the carriers by a mechanical device, thus doing away with hand labor. Mr. Rivault, the field manager, informs me that on Cinclare proper and the Kirkland places there will be 850 acres of cane, all plant and first year's stubble.

Additional cabins are being constructed on Mr. Dave Devall's Orange Grove plantation, where a hot room will be constructed and a new vacuum pan put in this spring.

The condition of the river here, and the enormous rise coming out of the Ohio and tributaries, is viewed with more or less apprehension by our people. Our levee line is in fairly good condition, but a high-water fight is always an expensive and uncertain affair, and the prospect of a repetition of last spring's flood is extremely disquieting to

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been on the whole favorable for out-door work, and the farmers are well ahead with their ploughing. The predicted blizzard was found to be only a slight cool spell, much to the gratification of all. Rain has been needed, as the ground was very rough and in poor condition; then, too, planters wished moisture to bring up the corn planted and to enable them to finish planting. The ground was very cloddy and a good warm slow rain was badly needed. To-day at Napoleonville we received a fine rain and it will do worlds of good. We trust that it was general over the parish, but it seemed to be local. The last planted cane, particularly in black land, needs a thorough soaking to bring it out of the ground. Some few planters are disposed to grumble at their lack of stand of plant cane. We do not think that this is general, and within the last week much has come out that was not very promising before.

Himelaya has closed a contract by which it became the purchaser of the Georgia cane for the term of five years. The Reading Iron Works have obtained a contract for the erection of a 6½-foot roller to enable Himelaya to get the best results from the bought cane.

Mr. Monnot, on Elmfield, will put in additional clarifiers and will add one or more centrifugals.

We hear that Major Burbank contemplates erecting extensive improvements on his property, including a vacuum pan.

It is rumored that the crop of Locust Grove will probably be sold to the Elm Hall factory, or, at any rate, that negotiations with that end in view are pending.

We are glad to chronicle the recovery of Colonel Lalande, of Nellie, from a severe attack of illness last week, when his illness gave much concern to his friends.

If the presence of machinery drummers in flocks is a sign of returning prosperity, then it must be very near at hand, as the woods are full of them, and so are the roads, the hotels and even the plantation headlands. They all appear to be busy and complain of no lack of contracts. The plantation work in Assumption is far in advance of that on the river. Last week many places were still planting in St. James, St. John and St. Charles. Here much of the early corn forms a perfect stand, and on some places has had its first working. The stubble is unusually good, in fact the term is not strong enough to express its thrifty condition and regular stand. The rain of to-day will be beneficial to it as well as to the corn and plant cane.

The Lafourche is rising rapidly, and with the high stage in the Ohio, and the heavy rains in the Missouri and Mississippi valleys, we may look out for higher water than we desire. The work done on the levees for the past few years has given a certain sense of security, and yet this sense of over-confidence is in itself an element of danger. We have so much at stake behind the levees that we can never pay too much attention to their condi-

tion, but should always be vigilant lest some weak spot should develop.

It is to be hoped that in time the Federal government will take entire charge of the levee system, and the care, worry, taxes and anxiety will be lifted from the shoulders of the people. The riparian proprietors have a large burden to carry, and as we receive the waters from so many States, so should the aid to protect ourselves against this accumulated flood come from many States.

The nation should take charge of the nation's river, for the Mississippi is too large in every sense of the word to be the charge of one or two of the States. Its importance in times of war as well as in times of peace should make it the charge of the entire country.

As I write (Monday night) a slow rain is falling, and there seems to be fair prospects of more to-morrow.

Messrs. Taylor Beattie and W. E. Howell, of Lafourche, are up in attendance on District Court. Mr. Howell reports things agricultural as flattering in his parish. He is making extensive improvements on Waverly this year, including a new mill and an extensive addition to his boiling plant. We do not know when we have heard of improvements being as general as they are at present. But of this

MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Agriculturists, ever at the mercy of the elements, have much to contend with when the meteorological influences are such as to retard field operations, particularly in the spring time, as has been the case this year.

Thus far no injury has been done, yet all are now anxiously looking for rain to moisten the encrusted fields where the character of the soil is somewhat tenacious.

In some instances lands ploughed for corn can not now be planted until it rains, as the soil is not only dry but very cloddy, and the seed would not germinate if planted. In some cases, fields will have to be replanted owing to the ravages of the worms.

Stubble fields, where the canes have been shaved and dug, are sprouting out nicely and promise a good stand. Fall plant cane is looking well, and the early spring plantations are thickening from day to day. The early corn will soon require the first working, but would be very much improved by a seasonable shower before cultivation. Where canes were planted in black lands, and the soil has become compacted, it will be well not to disturb them with either plow or hoe until showers moisten the soil. Any injury done to the delicate roots of the mother canes will prove detrimental.

Where field work is well advanced stubble fields are being manured and the middles ploughed out to guard against climatic extremes. The old plan of leaving the canes with only a moulding furrow is fast becoming a thing of the past, particularly when the drainage is defective.

The drying of the clammy soils which have been ploughed since the heavy rains of the

past has been of marked benefit, as the land will be in fine tilth should seasonable rains follow.

The devastated condition of Cuba is such as to preclude the possibility of and rapid development of the sugar industry on the island even should independence become an accomplished fact in the near future. Labor will be very scarce, and some time will elapse before the acreage in cane will equal the area under cultivation just prior to the insurrection, even if abundant capital seeks investment in centrals. Years will probably elapse before 1,000,000 tons of sugar are again made on the island.

The per capita consumption of sugar in this country now exceeds 82 pounds, and probably at no very distant date it will equal 100 pounds, even before the population exceeds 100,000,000. When the delta lands of the State are adequately drained, and labor-saving machines are perfected, etc., the annual output of sugar will far exceed present expectations.

On Saturday, at the court house, there was an amicable sale of Forest Grove, formerly owned by Messrs. Buford & Bernard, owing to the recent death of Mr. Bernard, Mr. C. A. Buford becoming the purchaser of one of the finest pieces of landed property in the parish.

Wednesday of last week was generally cloudy, with very light local showers; Thursday was cloudy and cool in the morning; Friday, cloudy in the early part of the day, with sunshine in the afternoon, also Saturday and Sunday; Monday there were local showers, but light in the upper part of the parish; also on Tuesday, with cool northwest winds; and since 4 o'clock this morning (Wednesday) a fine rain has fallen, yet not enough to thoroughly saturate the big clods, but if it clears up the rainfall may be ample for present needs.

The official weather report from Schriever is as follows:

	Temperature.	Sunshine	Rainfall.
March 21.....	82.0	65.0	100
" 22.....	83.0	66.0	100
" 23.....	84.0	64.0	100
" 24.....	83.0	58.0	75
" 25.....	72.0	55.0	75
" 26.....	85.0	58.0	100
" 27.....	86.0	65.0	75
	82.1	61.5	100

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The changes in the weather for the past week have been many and sudden, vying with the sudden changes in North and Northwest Texas, though not so severe. We have had a few days of very cool, disagreeable weather of late, and at this writing the thermometer registers below 60 deg. The continued drizzle of rain that accompanies this cool weather renders the roads sloppy and unsatisfactory to travel over as well as unfits the lands for work. However, the change has not been severe enough to injure the growing crop, and it is to be hoped that it has reached its zenith. The cane crop is looking finely, and almost a perfect stand is reported.

On all sides in the cane belt large, healthy ratoons mark the rows, and the outlook for a full crop is very promising. Your correspondent drove out three miles south of Abbeville to the home of Col. Joel Moody, editor of the *Republican Idea*, a few days ago, and that affable gentleman walked us over his cane crop, which is very promising, and explained the *modus operandi* of planting and working a cane crop successfully in this parish. Colonel Moody is a hustling "Yankee," and gets the sugar out of the land if it's to be had. There are broad acres adjoining Colonel Moody's plantation which are planted to cane and looking very well. The corn crop throughout the parish is very promising for the time of year. Planting is about finished, and a perfect stand is already up. No complaint so far from insects of any kind. Preparations are being made to put in a very much reduced acreage of cotton. In every case where cane or rice can be substituted for cotton it is being done. The rice crop will be very large, but the acreage will not exceed that heretofore reported in *THE PLANTER*. The greatest increase will be in the western and southwestern portions of the parish, along the Gueydan and Hall and Slutz canals. Work is favorably progressing on the Hall and Slutz canal, and those gentlemen are pushing the preparation of their land for planting. In a conversation with Mr. W. G. Hall of the company, a few days ago, he informed *THE PLANTER* man that they had already about 1000 acres of land ready for seeding. The extension of the Gueydan canal is also being pushed to completion, as would appear from the records of Vermillion parish, which shows that at least \$150,000 has been put behind the undertaking.

Mr. L. Forsyth, Jr., of the Caffery refinery, was in Vermillion this week looking after the interest of his plant.

Mr. B. R. Garland, of Wright, La., has just returned from a trip to his old home in Indiana and brought with him a full force of hands for his rice plantation. "Uncle Dick" is one of the veteran rice planters of the State and is not in the business for his health.

Mr. A. R. Murtry, of Marshall, Ind., came in a few days ago to look after his large rice interest in the western portion of the parish.

Mr. J. T. Gillentine, of Wright, was attending to business in town yesterday. He says that they are expecting the extension of the Gueydan canal to furnish water for the rice crop in his section this year.

Mr. H. J. Landers, of the firm of Landers & Donnelly, of West Vermillion, was shaking hands with his many friends in Abbeville a few days ago. Mr. Landers is now located at Crowley. P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: The ever-busy farmers and planters are just now enjoying a forced rest, hoping for a season of fair weather that the soil may become drier for the better performance and advancement of field and crop cultivation. The weather has been very changeable of late. On the 27th the mercury rose to 80 deg., dropping to 52 deg. on the

morning of the 28th, with the wind and clouds from the north sending down torrents of cold rain during the entire day and night. On the morning of the 29th the mercury had dropped to 48 deg., with a cold rain falling, the wind north.

The farmers are very anxious to get to work, stirring the ground around their young corn, which is now up, growing and beginning to need attention. The stand of corn which has to date come up is said to be about as perfect as it is possible to obtain in this country, which is due, no doubt, to the careful selection of sound matured seed for planting purposes.

Some of the finest corn it has been your correspondent's good fortune to witness grown in this section of the State was from seed imported expressly for planting from Indiana. This corn is of a white variety, the grain large, plump and hard, of what is known in the West and classed by the millers as hominy and grits corn on account of its peculiar whiteness and flinty nature adapting it for a special quality of goods.

So far as I have been able to learn this variety of corn seemed to have readily taken to our soils and climate, producing an average yield of grain satisfactory to those who have so far planted it.

Our cane growers are to-day waiting and watching for the water to drain off of the land that they may muster all hands and start teams and plows to stirring and breaking the soil, which has been firmed and run together by the late heavy rains. Warm and drier weather is to be hoped for during the month of April, that all planting interests may be encouraged and promoted.

THE PLANTER's scribe has been placed under obligations to Mr. Omer Armant, of Cottonport P. O., for some valued information relative to the planting interest in that part of the parish. From what Mr. Armant says it seems that about all who could do so have planted from one to ten acres of cane this spring, with the determination to quit cotton growing and adopt cane as fast as it may be possible for them to grow seed sufficient to that end.

Mr. Armant seems to think that the majority of the farmers who cultivate the rich alluvial soils of Bayous Rouge and Des Glazes will be planting and growing cane and corn instead of cotton inside of the next two years.

A plot of land containing fifteen acres has been laid off near the depot at Cottonport for the new sugar factory which is to be built at that point. If I have been rightly informed this season Mr. Regard, proprietor of the Dora plantation and sugar factory, Cottonport P. O., has, so I have been told, planted a decidedly large acreage to cane this season.

Mr. Coco, owning a fine plantation and sugar factory near Cottonport, has planted an increased acreage to cane this year. Thus it is seen that the facilities offered by the Avoyelles Railroad are bringing a large area of the best lands in the State into cane farming and prosperity.

Mr. Percy Irion, Eva P. O., has planted thirty acres to cane this spring, and has six

acres of first year's stubble. He will plant corn, pease and some cotton.

Mr. Robt. Irion, of Eola P. O., has planted ten acres to cane this season with the object of growing seed to plant an increased acreage to cane next year. Surely this is an inviting field for capitalists—one in every respect more flattering with better inducements for obtaining rich strikes of gold than can be found in far away ice-bound Klondyke.

From present indications, as I go to mail with the rain still falling and the ground full to overflowing with water, it will be some time before much ploughing or field work of any sort can with profit be performed. ERIN.

St. James—Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: Merely a few light showers have broken the dry spell which has reigned since last your correspondent wrote. However great and plentiful the rainfall has been during the winter, still the cry for rain is heard and its necessity felt throughout the country. Since Sunday the atmosphere has been very heavy and great clouds have wandered about as if the arrival of a heavy down-pour were but momentarily retarded; still we are yet to see it fall.

The predicted cold wave of last week, which was supposed to almost freeze vegetation and bury spring away, has been but lightly felt here and has happily done no harm whatever. As I am writing the wind has already shifted north with but little rain, and it looks very much as if we were going to enjoy heavy coats and blankets for a while yet.

By the last heavy rains that we have had the ground has been injured, inasmuch as the sunny days have since so dried it that large cracks have been formed, and the soil is otherwise hard and rocky, causing the planters to feel the want of rain. Field work is very well advanced on most plantations considering the early season. Scraping seed cane being terminated, stubble diggers are now doing their work, ploughing having been somehow or other momentarily suspended.

Most planters are well satisfied with the general outlook of their crops. So far each row in the field has already attained a most pronounced verdant aspect. Changes of different kinds are continuing to show up in the sugar factory line.

We hear that Mr. Manuel has decided to sell his cane crop on his Lillie plantation, and Mr. Lapice, of Lauderdale plantation, has purchased the vacuum pan on the Southwood plantation and will also fix up his sugar house, modernizing it somewhat.

We hear that according to some so-called wise engineers it is believed that the river will rise to a very high stage this year, as high as it did last year. Active preparations are being done to combat the water again this year.

Messrs. Pierre Chauvin and Jules Jacob, Jr., were on a business trip to Southwood plantation, in Ascension parish, this week.

CONVENT,

Capt. Geo. E. Mann, of the lower coast, came up to the city on Sunday, and registered at the Grunewald.

FOREIGN LETTERS.

Berlin.

(Special Correspondence.)

BERLIN, March 12, 1898.

Editor Louisiana Planter: The unpleasant, and, in the face of the approaching spring, unseasonable weather, as repeatedly described in these lines, has in this vicinity kept on up to Tuesday, and elsewhere a few days longer, but now we have dry and sunny, but very cool weather, and although there is no radical change in the direction of the spring to rejoice over, the meteorological conditions have achieved a large step in advance which will be gladly hailed by the agricultural population, inasmuch as the moisture in the soil is no longer added to. But whether there will be an early drying up, and whether field work can be undertaken in a short time, depends on how long the present dry weather continues. Besides, it should grow soon a little warmer. The nights are very cold indeed, and every morning white frosts are visible all around. These night frosts are preventing the evaporation of the field moisture, which generally thaws in the warm, shining sun, which change, by the way, is anything but useful for the winter cereals, whose growth, so far, is on the whole quite satisfactory. Outside of Germany the weather appears to have been a little more backward, more particularly so in France, where in the beet districts heavy masses of snow have fallen, so that communications were interrupted and field work suspended. In Russia, also, very severe weather has prevailed, whilst in the other countries, at the end of the week, about the same change as in this country has taken place, but everywhere the advance which for some time seemed possible as compared with other years is lost. Under the head of crops, may be classed, the news just arrived that in Southern East India the cane crop is reported to be attacked by a sickness and that the government's expert advises to destroy the whole crop and suspend cane growing for one year. It will be interesting to learn particulars of this case, for the present the intelligence is hard to appreciate in its full bearing. It must be remarked, however, that on the faith of it prices of low brown sugars in London have sensibly stiffened.

The prospects and opinions as to the importance of next beet growing have not changed in any notable way, and it is therefore probable beet culture about the same as last year will occur.

On the scenes of the bounty war nothing of particular interest has happened. Some more or less official utterances in France continue to lay stress on the maintenance of the indirect bounty, whilst the new direct subsidy shall be graciously renounced on when other countries which have no bounty at all will give up theirs. Besides, quite apart from this attitude of France, the fabricants of the two large empires—Germany and Austria, are now any way less eager in their efforts to put an end to the bounty system. The sugar industry is almost everywhere protected either by duties or by bounties, and if the above named countries would give up their present protection they

would stand disarmed against many competitors on the markets of the world. Admitted the possibility that a convention would be brought about amongst the bounty paying beet sugar countries, could not one fine morning some other nation start a sugar industry with help of fiscal subsidies, as, for instance, just has been done in Argentina, whose production has increased in a measure that it must export, and this with the help of a bounty. Then look at Russia, who nominally pays no bounty, but whose production and consumption, by legal measures, is regulated in a manner to insure high prices to the manufacturer, and Russia hardly would participate in a conference, and, even if it would, she certainly would not be willing to leave her sugar industry without fiscal protection, and in all probability she would declare the granting of certain advantages to the sugar makers as an affair of the interior which nobody has a business to meddle with. And this situation, with regard to Russia, is even accepted by the United States government, who do not think fit to put a countervailing duty on Russian sugar, in spite of a condition of things which not only enables the Russian fabricant to export cheaply, but compels him to do so. And now imagine that Germany, or any other country, abolishes the bounties, how are they to compete in such a case? In this light now bounty matters are viewed in Germany, and I dare say even more so in Austria, so that the well-wishers of the conference are very few and far between.

With reference to Russia, it may be mentioned that the government has issued a decree restricting the admission of saccharine into the empire. It shall not be used any more as a means of mixing it with any substances destined for common consumption, and shall be imported only and used for medical purposes; and, in order to prevent any abuses, the stuff is to be classed among the "strongly acting matters," and its import made dependent on a special permit. In some other countries, for instance in Germany and Austria, the use of saccharine appears to be greatly on the increase, and it is time that—at least for the sake of equity—the stuff should be taxed in correct proportion to sugar. It has been found that in Germany at present thirteen brands are in the trade, of which three are 550 times sweeter than sugar, one is 450 times, two 350 times, three 200 times, etc., sweeter than sugar. Preference is given to saccharine in some industries, because of its preservative qualities and for that reason it is extensively used in breweries, whose object it is to produce a sweet beverage; but it is also sold in small tablets for sweetening the coffee. One dealer in this city advertises such tablets together with a sugar tongs in one package. By the way, it is no easy matter to fight the saccharine, for it can be produced in small quantities in any laboratory and then sold in an underhand way.

The importation into England does not show in February such large figures as in the preceding month, but nevertheless the landings have been larger than in February, 1897. A particular feature of the February importations is the small percentage of cane sugar comprised

in them. It hardly needs mentioning that the keen competition of American refiners, who, on account of the countervailing duty on beet sugar, go on as long as possible with buying cane sugars in all colonies, is the cause of this deviation of colonial produce from the English markets. For January and February, the total importation of Great Britain amounted in raw value to 224,847 tons, as against 172,935 tons in 1897.

The markets were in the first half of this week quiet and prices could be barely maintained. Later on a change for the worse took place and in the absence of any activity the prices receded all around. The cause of this unfavorable turn consisted in great part in bad news from America, where imports and stocks are reported to be again on the increase and where prices had dropped in a marked degree. The machinations of English speculators are also said to be at the bottom of the retrograde movement. These gentlemen lay cheap offerings of later deliveries on the market in order to get their actual sugar at a low price. But in this they would not be successful if the manufacturers refused to sell on terms, or rather would buy themselves the parcels offered for later delivery. Any way the market closes dull and lower, and 88 per cent. actual sugar is quoted at last at 10-10.20 marks and delivery for March at Hamburg is worth 9.15 marks. Refined has been quiet throughout the week and prices partly lower and nominal.

R. HENNIG.

The Sugar Season in Australia.

It can not be said that the past year has been a successful one for the sugar planter. And yet the industry has not sustained the material diminution which every one expected. The dry season which prevailed during the early part of last year, and the latter part of 1896, is entirely responsible for the falling off in the present season's crop. Although all the returns have not yet been made public, those which are yet to come will not make a material alteration in figures. Up to date the output for 1897-98 comes up to 91,300 tons, which is 9474 tons short of the 1896-97 returns, but is still 5479 tons over the figures set down for 1895-96. The present season's crop must, therefore, be considered as fairly satisfactory. The impetus given to the industry by the introduction of the sugar works guarantee act, at a time when planters had begun to despond over their prospects, is worthy of attention. Without that act it is estimated that the crop would have fallen short by some 15,000 acres of the previous year. The estimated area under crop is 90,000 acres, so that the returns are, roughly speaking, only one ton of sugar per acre. This average applies to the whole of the colony, but some districts approached closely on two tons to the acre, while others went down to a very low average. Looking at the whole question it is evident the industry is bound to travel northward.—*The Tropiculturist*, January 20, 1898.

Mr. D. J. Kerr, manager of the Swenson estate, on Bayou Salé, was a guest of the St. Charles Hotel on Sunday.

BEET SUGAR.**Chino, California.**

The weather for the past week has been most discouraging to beet farmers as well as to all others. The rain so badly needed has not come, but instead we have had a series of drying winds which have not only still further dried out the soil, but damaged some fields by drifting sand.

In an interview yesterday with Mr. Ruopp, agricultural superintendent of the factory, he told us that there were planted up to last Saturday on the Chino ranch 750 acres; at Anaheim 1370 acres, and at Florence 1090—a total of 3210 acres tributary to this factory. Last year at this date there were 2686 acres planted, including Hueneme, which was then tributary to this factory. The planting is therefore much further advanced than it was one year ago. But twenty acres have yet been replanted.

Thinning is just ready to commence. At Anaheim there are 155 acres ready to thin, at Florence 75, and on the Chino ranch one or two fields. There have been ploughed for beets to date at Chino 4200 acres, at Anaheim 2700, and Florence 2000 acres.

Mr. Ruopp says that unless we have an inch or more of rain he expects no crop from Anaheim. Florence is in a better condition to withstand drought.

He takes a more encouraging view of the conditions of Chino. He says that this ranch is better suited to withstand drought than any of the beet-growing sections. If we shall yet get some spring showers there will be but a small acreage under contract not planted; though, of course, the yield must be expected to be light on some of the land. He advises the farmers to continue working the soil and keep it thoroughly pulverized, so that it will retain all the moisture there is and absorb what may yet fall.—*Champion, March 25.*

Watsonville, California.

The weather continues cold and dry.

Rain would be acceptable in this valley, but is not as badly needed as elsewhere.

About 200 acres are being sowed to beets at Aromas. The land is moist and promises a big crop.

About 1500 acres have so far been sowed to beets, and sowing is getting into full swing. Many farmers are planting earlier than usual this year, while others will wait until May.—*Pajaronian, March 24.*

Los Alamitos, California.

There will be few beets sown this year, and very little working of the sugar factory at Alamitos, unless there are two or three inches of rain during the remainder of this month. J. Ross Clark, the head of the Alamitos beet sugar factory, says that while he does not take a pessimistic view and thinks there is plenty of time for rain, yet he thinks that unless it does come this month, to the extent of two inches, there will be little or no crop. "The trouble has been that planters have not provided any method of irrigating the crops, or

rather the land." Mr. Clark is quoted as saying in a Los Angeles paper: "All that would be necessary to insure a crop, even in a dry year, would be to give the land one good soaking before seeding. In all of the beet regions the entire dependence of the farmers has been put in nature, and she is feminine enough to be exceedingly disappointing occasionally. It is probable that the lesson of this year will be of great resultant good, for in most of the beet country artesian water is readily had, and the farmers before next season will be likely to have a source of supply."—*Champion.*

Eddy, New Mexico.

The sugar company commenced planting beets on the Hobbie tract west of town, this week. This is the initial planting of the season, but others will quickly follow. All the seed has been received, about 38,000 pounds. The greatest portion of it, about 5700 pounds, is the original Klein Wanzlebener. This seed was used here last season, and gave good satisfaction, and is considered the standard in all the beet districts of the United States. The remaining 11,000 pounds is a French seed—Carlier. This variety was also planted here last season, good success resulting. Farmers are requested to call for their seed, and Manager Goetz announces that all those who so desire can test the seed before planting. Every effort has been made to secure a first-class article; it has been done, and now it is desired that the farmer be convinced that they are planting nothing but a fresh and strong seed. About 1100 acres have been contracted for in the lower valley. Manager Goetz is visiting the upper portion this week for the purpose of having farmers sign contracts. J. F. Rarey will look after the planting for the company, being employed as farm superintendent.—*Pecos Valley Argus, March 25.*

Sugar Beets in Montana.

A reader of this paper who lives now in Iowa, but who is going to remove to Montana, writes us inquiring as to the status of the sugar beet problem in Montana. At the Montana Experiment Station they have been studying the adaptability of Montana soils to the growth of the sugar beet. Recently Prof. J. B. Traphagen, of the station, told what progress had been made, and the result of the inquiries and investigations. The information he gives will, no doubt, give our correspondent the facts he desires.

The experiment station has distributed seeds of the sugar beet found best adapted to our soil and climate, says Professor Traphagen, during the past two seasons, to all farmers who would plant the seeds, and report results to us, together with samples at the end of the season. The Kleinwanzleben is the variety we have selected.

The results so far as richness in sugar is concerned are highly satisfactory. The juice is free from other solids in solution besides the sugar. The last factor is called the purity coefficient, and is obtained by dividing the percentage of sugar in the juice by the percentage

of the total solids present. It should be above 80 per cent., and in almost every instance it has been so in the samples submitted.

The beet sugar refineries, as a rule, require that beets offered them for sale shall contain at least 12 per cent. of sugar, and shall have a coefficient of purity of at least 80 per cent.

Taking all samples of last year into consideration, the percentage of sugar averaged over 15 per cent., with a purity of above 80.

As a matter of fact the beets from only one section fell below 14 per cent. Park, Flathead and Gallatin counties, excluding the beets grown on the experiment station farm, each gave averages of more than 14 per cent.

This is the more remarkable when it is remembered that these beets were grown almost without a single exception by farmers who had not had any previous experience in sugar beet culture. It is an invariable rule that large beets contain proportionately much less sugar than beets of medium size grown under the same circumstances, and these lots contained many large beets.

Montana is known to yield excellent returns from the cultivation of almost any of the roots, and there is no reason why large yields of good beets should not be had.

It is for the farmer to say whether he is willing to enter into the production provided a market can be furnished the product. The yield per acre should average a return of \$60 per acre at the usual price of \$4 per ton.

The farmer must determine for himself whether he can make a profit from the raising of sugar beets, but in considering the question must not lose sight of the fact that the many acres lying idle each year in fallow could be made to furnish their share of profit with as great benefit to the land as would be obtained by letting it lie idle.

Nearly one-half of the land in Gallatin valley lies uncultivated each year, alternate halves of the farm being planted. Experience on the Experiment Station shows what may be done by careful attention to the cultivation of the beet. While the average for the Gallatin valley was a sugar content of a little over 14 per cent., that of the Experiment Station was over 17 per cent.

These experiments have demonstrated beyond question the fact that sugar beets unusually rich in sugar can be grown in the State, that the manufacturing season may begin early in September, and that a pure juice may be confidently expected. That sugar beets can be successfully grown in Montana is beyond question. It now remains for capital to solve the financial problem involved in the manufacture of sugar from the raw beet.—*Montana Stockman.*

Hon. W. E. Howell and Mrs. Howell, of Lafourche parish, were at the St. Charles during the past week, as were also Messrs. W. I. Barton and E. H. Barton, of Ascension parish.

Mr. E. A. Sammons, the skilful engineer who had charge of the erection and operation of the splendid Cinclare factory of Mr. H. L. Laws in West Baton Rouge parish, was in the city on a visit a few days ago and registered at the St. Charles Hotel.

Demerara Agriculture in 1829.

[Written about 1829 by WILLIAM HILLHOUSE for an unpublished handbook of the Colony of British Guiana.]

The first attempts at cultivation were made by the original Dutch settlers in the vicinity of the falls of the three rivers, Essequibo, Massaroony and Cuyuni. Here may still be found, surrounded and intermingled with the trees of the growth of more than half a century, small groups of cacao and coffee, with detached heaps of broken bricks, the mouldering ruins of cisterns, and wrecks of the industry of a former generation. On traversing the sites of these long abandoned abodes of our colonial forefathers one can not help being struck with the idea that their lives must have been one uninterrupted scene of ease and enjoyment. The most salubrious atmosphere, no mosquitoes, no fevers or agues—detached fertile spots in the valleys, where as much cacao, coffee, cotton or arnotto was grown as from 200 plantations could freight one Dutch merchantman. The jubilee of her arrival, with the Salempores, Osnaburges, Schiedam and Karse, bespoke a year ago, and the nightly calculations of profit on her departure with the whole crop of a plantation, five bags of coffee or cacao or a bale of cotton. Those were happy times. In the whole colony security could not be found for a mortgage of £30,000. There was no credit and consequently no debt, and the patriarchal burgomaster of Cartabo smoked his smuggled varinas, drank his consigned schiedam, eat his fish, flesh and fowl, and wore his gorgeous suit of salempores and osnaburges without a thought of going home, or a care for the dun of a mortgagee.

Had you told the old fixture of Cartabo that one day there would be 70,000 negroes in the colony and a million of money invested for every hundred then; that two mutations were to remove his grandchildren from these beautiful hills and clear streams of the upper rivers to the muddy and flat sea-shores; that his dandy little six-gun battery on Kyk-Over-All would be allowed to moulder into ruin, and that the transparent anchorage, where barnacle and ship-worm dare not exist, was to be changed for that stinking Paradise, the mud flats of Demerara, he would have smothered you with a wrathful expiration of his mundungus and "Soth for dommed you for a Liggan blexcum." But, needs must where the devil of wealth drives.

Notwithstanding the epicurean indolence of the old planter, he made money, and being of simple habits and unacquainted with luxuries, he knew not how to spend it. In an evil day he began to think that by a little more exertion he might remove the scene of his enjoyments to Europe and then came ambition, speculation, negroes from Africa, desertion of the delicious hill and vale of the interior and occupation of the muddy shores of the seas, mosquitoes, fevers, steam engines, rum stills, mortgages, luxuries, protested bills, retained doctors, lawyers and colonial coffin makers. The Burgomaster of Cartabo has sunk under this accumulation of cane and misery and John Bull with his capital and Saunders with

his perseverance and frugality, more accustomed to the buffs and rebuffs of commercial speculation, have stepped into his shoes and into a life of incessant labor and activity, in dread of every wind that blows and every tide that rises, but in the constant hope of at last, by hook or by crook, making a fortune and going home.

The first consequence of this change has been the introduction of a regular system of agriculture, for up in the hills nature did everything, draining was spontaneous, it was only necessary to clear and to plant; to renew below it was in the first instance necessary to make the soil, which was afterward to be planted.

The Dutchman who had first settled the hills was still more at home even in the swamps, and he consoled himself for the loss of the comforts of the interior by making the coast a second Holland. From her therefore he took his cue. And dams, canals, sluices and empolders were reclaimed from the sea, a portion of alluvion, unequalled in fertility and richer in its product, than the finest gold ore from the mine.

Few monuments of human industry are more astonishing than Demerara as it now stands, where by system and perseverance, in spite of miasma, the plague of pestilence, the sun and the wave, a population of 100,000 people reside beneath the sea and the level of that sea covered with fleets of merchantmen laden with their produce in a proportion absolutely unequalled by any other portion of the known world.

A planter purchases a grant of 500 acres of land extending about half a mile in from the sea coast and about a mile and three-quarters toward the interior, between parallel lines. His first care is to throw up a strong dam in front to keep out the sea. His next step is to enclose a space of about 100 acres with an interior trench and exterior bank or dam, formed from the earth of the excavation. He next erects a brick sluice, or wooden koker, to drain off the water from this enclosed space, which is called an empolder.

The empolder is now cleared of trees and a canal is dug from the front to the back in the middle of the estate, which is the leading canal of navigation. From this canal proceed trenches to the right and left at about 150 paces distance, which extend to within about fifty paces of the side boundary. These navigable trenches divide the estate into ten-acre fields.

Drains are now cut from near the centre canal to the draining trench on each side of the estate, the distance between each drain being about thirty-six feet, which is called a bed. The navigation and drainage are now completed—the former being down the centre of the estate and the latter round and down the sides of it, and communicating with a valve door, which lets off all superfluous water from within and admits none from without.

The heavy trunks of the trees are split up into firewood, and the brushwood is burnt on the land. Plantains are now put in at distances of from twelve to sixteen feet in good land. Sixteen feet is the best distance, as the suckers around the parent stool or root rapidly spread

and reduce the distance in two or three years to less than half. After land has been in plantations ten or twelve years it is eligible for canes, which, if planted before this preparatory step, are so rank and watery that the sugar is dark and of very bad quality.

When plantains are a year old they afford sufficient shade to plant coffee or cacao in the intervals, the former in rows 8 feet distance, the latter 16. In ground that is well drained and sufficiently elevated the least breadth for a bed is 48 feet, but in low spots—and all estates abound in these—it is frequently necessary to reduce them to 30 feet, with a trench of about 2 feet wide and as many deep, the ground out of which, being leveled over the centre of the bed, raises it and accelerates the drainage. Bad work in this state is easily detected, when the earth remains heaped at the side of the drain instead of being leveled over the centre of the bed, and occurs in every instance where the white overseer is not present on the spot to prevent it.

Small drains which separate the beds are sufficiently deep at two feet below the general level of the surface, but five feet is always required for the main or side-line drains, whatever their breadth, in order to insure a current from the small drains into them. A sluice or koker to drain 500 acres of land should be 8 feet by 6 in the aperture if of wood, but if a cylinder of cast iron, 4 feet in diameter will be sufficient. The bottom of a wooden koker should be within a foot of low water mark, or it will speedily be undermined by the crabs. The top of an iron cylinder should be level with the bottoms of the small drains.

In February it is prudent to stop the valve doors of kokers and sluices and to preserve 8 or 9 inches of fresh water in the small drains, the ensuing month of March being generally very dry and causing every kind of cultivation to suffer much. In August it will be prudent to preserve even more water within to meet the long dry season.

A side drain for 500 acres should be fifteen feet broad at the koker and may decrease to six feet at the back dam, but if the cultivation is to be rapidly extended it should not be reduced to less than twelve feet breadth throughout.

Supposing an equal remunerating value in the different articles of colonial produce, the first 500 roods from the sea should be planted in cotton, the second 500 in canes and the last 500 in coffee and plantains.

The first 500 being of most recent formation is too much impregnated with marine salt to give good sugar till after many years of cultivation and drainage, and the last 500 roods, verging upon the pegas lands has a vegetable surface highly favorable for the growth of plantains, coffee or cacao, but not of canes. Plantains are not injured by the salt of front lands, but they are too much exposed to the sea breeze, which throws them down before ripe, and renders it desirable to have them behind the other cultivation and as much sheltered as possible.

Coffee sows itself under the bearing trees in great profusion, the strongest plants at three or four months old are removed into the nur-

ery, where they remain at a foot apart till fifteen or eighteen months old, and they are then planted under the shade of the plantains in any sized bed at eight or nine feet distance. When three years old they are topped to about five feet in height, at which they are kept for the convenience of picking. They bear in the fourth year and are in full crop in the sixth. In well grained and rich land they last thirty years. The bean of the young trees is the largest and coarsest; that of old trees is small, with a great proportion of what is called barley coffee and is of superior quality. In the pegas land of the canals the coffee tree grows to twice the size it does on the coast, and its produce is much more abundant, but the bean is larger and the quality not so fine.

Sugar, now the only hope of the planter, has swallowed up all the other cultivations and cotton, coffee, cacao with every minor production have disappeared before it.

A field to be prepared for sugar must be first carefully leveled, spaces are then marked off of 3 and $3\frac{1}{2}$ feet alternatively from the first space, a shovelful of ground is dug and piled up one on the second so as to make a bank and shallow trench across the bed; this process is called cane holing.

The space between each bank is now dug up for 6 or 8 inches, loosened and broken small by the shovel or hoe; this is called shovel or hoe ploughing.

The ground is now left for a few weeks to pulverize by the action of the sun and rain.

A negro is supposed to dig 12 feet square of a draining trench 5 feet deep in a day, 264 feet of a small drain, and to cane-hole 160 yards, each of which he is to perform with ease under common circumstances between the hours of 6 o'clock and 3.

Six negroes will weed an acre of coffee and plantains in a day where the ground is well covered with grass.

Four or five negroes are required to an acre of canes, being six weeks after the spring the first weeding. The second weeding at three to four months required about five or six.

The threshing or pulling off of the decayed and qualling leaves of the cane at seven months old is the last work on them before they are out, and requires about five negroes to the acre.

The plant cane is ripe in thirteen to fourteen months from the time of being planted; it is then about nine feet long in average soils. From the top of it a piece is cut off, about fifteen inches long, in which there is little sugar. This is again planted in two rows in the cane hole at about a foot apart, and at an angle of 30 deg., one-third of the top being in the ground. The tops should be planted so thick that the upper extremity of the one shall nearly overhang the buried end of the preceding one. In very rich soils and a rainy season they may be planted much wider, and if the ground is very moist and the showers constant, they may be laid flat on the ground, the lower end trodden in with the foot, when every joint will throw out a shoot above and a root below.

Very great care is required in the first weeding of the young canes, as their shoots are not

easily distinguished from the grass that surrounds them, and without constant watching the negroes will chop them off both together. In cutting the cane the negro first strips off all the leaves. He then cuts off the top for a plant, and then the rest of the cane into lengths of about three feet, which are carried to the mill by punts. An acre of canes, producing two hogsheds of sugar, requires to cut and carry to the punt [left open in MS.]—able negroes—men and—punts will carry to the mill for four hogsheds.—Creoles of from 10 to 15 years will unload the punts and carry their canes to the feeding board. Two men will feed an engine of ten horsepower for four hogsheds per diem.

—boiler men with one set of coppers will make four hogsheds of sugar in about fifteen hours. If two sets of coppers are employed to make this quantity, there is a most serious loss both of fuel and labor, which makes it absolutely necessary to boil fifteen hours with one set rather than any shorter time with two.

A box of liquor of 500 gallons will require fully twenty-four ounces of lime to temper in a cold state, on an average, though it frequently happens that one-half that quantity will be sufficient, and that as often double is required, according to the nature of the season and the age and quality of the cane.

The lime acts by neutralizing the acids existing in the cane juice and rendering the mucilage insoluble, which rises to the surface in the boiling process and is skimmed off. In this stage the acetate of lime is still held in solution by the cane liquor, and as by the ordinary process no separation afterward takes place it destroys the color and makes the manufacture on the wall very imperfect. The addition of alum in small proportions at this stage would perhaps be an improvement. The sulphuric acid would unite with the lime and the acetous with the aluminous basis—making one insoluble compound with the other a harmless neutral. The cane juice of Demerara contains on an average of about one pound of sugar to seven quarts of liquid. With good works it is reduced to sugar in quantities or strikes of seventy-five gallons each in forty or fifty minutes in open coppers, the fuel employed being the dried cane after it has passed through the mill.

The cane mill of three horizontal iron cylinders 4 or 5 feet long, and about 2 feet in diameter, one over the other two, does not press the liquor so perfectly out of the cane but that a small portion of the saccharine principle still remains in the crushed cane. When this is carried to the shed for drying it therefore ferments and the heat produced has the same effect in drying the cane as has the heat of a haystack in Europe. The expressed cane is called megas and is preserved in large loges, or sheds, being the only fuel used in the sugar boiling process.

Though it is absolutely necessary that the main bulk of the megas should ferment and dry in the shed or loge, it is found by experience that when taken from the mill and dried in the sun a great change takes place, for the spirituous fermentation destroys a great deal of the inflammable principle and it requires much less

megas when dried in the sun to make a hogsheds of sugar than if taken from the loge where it has heated; a saving of nearly 25 per cent. is thus effected of fuel. But this can only be done in dry weather, say four or five months in the year, sufficient time, however, to enable a careful manager to keep his stock of fuel ahead of his consumption.

The sugar, when of a proper consistency in the last copper, is struck or ladled out into coolers, being broad shallow troughs of about six feet square.

Four or five of these coolers, containing four or five of these strikes, will give four hogsheds of sugar. In this stage of the process there appears to be considerable room for improvement. In the first place, when the teach or last copper is emptied of its contents a small quantity is left behind to prevent the burning of the teach; in the interval of charging up the copper, now however short this interval, the portion of sugar left is twice boiled, oxidized and discolored, and communicates its bad qualities to the next strike or boiling. In the next place, by throwing a hot layer of sugar over the cold one already in the cooler crystallization is disturbed, and the coloring matter of the molasses of the second strike mingles with the crystal of the first and must have a very deleterious effect—the mixing up of all the strikes together in the cooler only tends to make bad worse, and the obvious alternative is to cure or drain every strike of sugar separately, for every hogsheds of sugar in the market shows a difference between the tops and the bottoms of nearly 50 per cent. in quality.

There is in Demerara sugar a foreign compound which is hardly to be got rid of, but which keeps it far behind the sugar of the West India islands—the muriate of soda, or the marine salt. This is imbibed by the cane from the soil, which is strongly impregnated with it and communicates an evident saltiness to the sugar, especially from the first crops of canes, causing it to deliquesce in the passage home, and though it is evident that the refiners have found out the means of getting rid of it the planters as yet have not. It reduces the value of our sugars in the retail market fully 15 per cent.

The skimming of the impurities of the cane juice whilst boiling, being mixed with a portion of the molasses and water, is put in vats of about 500 gallons each, and when the spirituous fermentation is at its height it is thrown into the still; this is called a setting, and the quantity of molasses added to the skimmings must always be in proportion to the richness of the cane juice. If the canes are plants the liquor will be weak, say two gallons of juice to the pound; the setting will then be — (left open in MS.) skimmings; — molasses; — water. But if the cane be ratoons (after the second year's growth), the quantity of sweets will be reduced in proportion. No two estates or two fields on the same estate give the same returns from the same proportions on account of the same perpetual variations in the quality of the canes and the consistency of the cane juice; the following will be found to be good common settings, some better, none worse.

When sugar is potted, that is, put into the hogsheads, in which it is to find the market, it is allowed two or three weeks to drain off the molasses, after which it is called cured.

The expenses of the sugar cultivation are as follows:

An estate of 300 negroes, valued at £85,000, interest at 6 per cent., is....	£3,900
Salary of manager	300
Doctor	150
Three overseers	150
Flash	290
Clothing	300
Repairs, supplies and loss of negroes. etc	1,500
	£6,590

500 casks of sugar at 60s. per cwt. (15 cwt.)	9,475
400 puncheons of rum at £12 per gin....	2,000
	£11,475

But supposing the sugar to be at only 50 shillings, the net proceeds will be only £7625. If 40 shillings, only £3325, which will not pay the interest.

Nothing can be more absurd than the levying an equal duty of 27 shillings upon sugars so different in value, as from 140 to 60 shillings the cwt. It can only tend to destroy the trade of the refiner, because it would be much better for the planter to ship home no 40-shilling at all, or to clay it, if he lost half in the process, or to distill it rather than to ship it at a loss to himself.

On all plantations the first sugars must be of an inferior quality, and even afterward a portion of every year's crop being from plant canes must also be dark. There are many processes by which the quality of the sugar may be enhanced at the sacrifice of quantity, but the planter will never embrace these alternatives, as long as the low-colored sugars will bring a remunerating price. But when that is no longer the case he must in his own defence decrease the quantity of his shipments and make in lieu a superior quality, by which the shipping interest is materially injured and the refining trade totally destroyed, for there will be no longer any muscovados in the market and the use of loaf sugar will be superseded by that of very fair raw sugar and clays.

Twenty-seven shillings duty on sugars is 2d. 3 $\frac{1}{2}$ per pound. The remunerating price to the planter is 3d., half of which is expenses. The merchants' charges are 8 shillings per cwt., which is about 1d. per pound. It gets, therefore, into the grocer's hands at a price of 6 $\frac{1}{2}$ d. per pound and is sold by him at from 8 to 10d. the pound, so that from every pound of sugar made the king gets 2 $\frac{1}{2}$ d., the planter 1 $\frac{1}{2}$ d., the merchant 1d. and the grocer 2d. That is the king has 183 per cent., the merchant 66 per cent. and the grocer 132 per cent. on the net value of the sugar.

There can be no further proof needed of the impolicy of duties so extravagantly disproportionate to the prime cost of the article and by means of which the consumer is made to pay three times the original value. Then, a piece of bread, whether grown in the country or not, is always made to keep pace with the price and the supply of all the luxuries; sugar

is nearest allied to the necessities of life and ought to be subject to similar regulations in its consumption. The market is overloaded with sugar, but it is monopolized by the crown, and the subject is debarred the use of it because he can not afford to pay the king a tax of 183 per cent. on it in addition to his present burdens.

The king of Spain's monopoly of tobacco, which cost him his South American provinces, was milder than this, for it was formed *ad valorem* and did not more than double the price of the article to his European subjects, but an impost of 200 per cent. on the staple produce of its own colonies has never yet been levied by any power in the world except England.

It is not necessary to enter into a detail of the process of a distillery, which is conducted on the same principle as those of Europe.

The expenses of 400 puns. of rum is as follows:

	£	s.	d.
Fuel per pn. 130 cords at 15s	97	10	00
Labor, 600 days at 2s. 6d	75	00	00
Molasses, 10,000 gallons at 6d....	250	00	00
Casks, each, 30s	600	00	00
Total expense (24 11s. per cask) 1,022	10	00	
Value of 400 pun. of 40,000 gallons at 1s. per gallon (£5 each)	2,000	00	00
Net gain	978	10	00
Deduct interest on distillery or 3d. per gallon to planter....	478	10	00
	500	00	00

The rum manufacturer has this high ground of moral superiority over the British distiller, that whereas the latter abstracts from the necessities of life and perverts grain from a wholesome article of food to deleterious luxury, the former only manufactures what would otherwise be an useless refuse, and is obliged to distill, otherwise the sugar duty would not leave him one farthing to feed himself or his negroes. The British distillery trade is optional and it abstracts from the article of food, perverting what was intended for bread alone to a more objectionable purpose. But the West Indian planter only distills what would otherwise run to waste, and the produce of which puts bread into the mouth—being a work of sheer necessity and forced upon him by the exactions of the revenue. The British distiller takes from a necessary to fabricate a superfluous article and the farmer would rather grow barley for him than wheat for others, so that the poor man's loaf pays a tax to the British distiller, and the government authorizes the taxation when the same superfluity can be afforded by the West India planter without objection as to the effect or means; sugar is a useful and necessary article of consumption, and every puncheon of rum must be concomitant with the production of at least — hogshead, sugars; there is something here to counterbalance the moral tendency of the fact. But with the British distiller there is absolutely no palliative in the destructive charge of turning bread into gin. At this rate it would not be worth while to distil rum at all, if the sweets could otherwise be disposed of, only that on an involved estate the petty sum thus realized

is the only disposable revenue of the planter, and is supposed with the molasses to defray the ordinary expenses of the estate and household.

Rum not being a necessary of life admits of a greater taxation than sugar. It pays 1000 per cent. duty. British spirits not more than — per cent., so that the British manufacturer clears — (left open in MS.) times as much as the colonial one, and the consumer pays — times the colonial value of the article.

For every two casks, one of sugar and one of rum, the king receives 72.10 and the manufacturer in the colonies 20. Can the question be asked after this, of what value are the colonies?

There is no crop time in Demerara; an estate of 500 hogsheads will make from 30 to 50 per month. The best sugar is no doubt made in the driest weather, but then the plants are lost and the ensuing crop from the same fields fall in consequence. There are so many advantages attending an equal distribution of the crop that the power of being able to do so gives the Demerara planter an immense advantage over the island one.

In the first place, the labor of the negro is uniform and regular; in the second place, there is no material delay or detriment from the breaking of machinery; in the third place, there is no regular succession of ripe canes on the cultivation, and a secure crop from the portion planted in moist or showery weather. In the long, dry season the cane arrows and the navigation is short of water. It not unfrequently happens, therefore, that in the month of October less sugar is made than in any other, the arrow of the cane being unfit to plant and the juice losing much of its saccharine principle whilst the cane is in that state.

The advantages of navigation, distribution and certainty of the crop and superior returns certainly enhance the value of Demerara property 100 per cent. above that of the islands. This is stiffly denied by the island planters, though fully proved by the conduct of the merchants, who certainly are good judges of the returns of their own capital, and are always ready to advance it on Demerara in preference to island property, an estate of 300 negroes in the islands not selling for more than £30,000, though in Demerara it is worth from £60,000 to £65,000.

In no other colony are the buildings of the sugar works on a greater scale of magnificence; those of an estate of 500 negroes will cost £20,000 or £25,000, and a stranger is apt to consider them as built in a style of superfluous expense. But the Demerarian, who in everything else is only anxious that it should last "his time," knows perfectly well that his land will be productive for a century, and that to sell to advantage his works must be permanently adequate to take off its produce, not only during his own time, but perhaps during that of two or three successors. Another great inducement to put up works on a large scale is the great plenty on the spot of the finest and most durable building timber in the whole world, but which timber when young and of small scantling is sappy and quickly decays.

It is necessary, therefore, to use beams of a large size, from mature and full grown trees, and these require a proportionate strength and dimensions in the other parts of the construction. The expense of these immense buildings is therefore an inevitable one, and though it demands a great increase of capital in the beginning, is an absolute saving in the end, as the inexhaustible nature of the soil would otherwise wear out two or three sets of temporary edifices at an equal or greater expense than one permanent one, besides the trouble and time lost by repeated re-erections.

In fact, though the common and avowed sentiment of the Demerarians is the mere provision for the moment, all the labors and speculation of man are on a scale of magnitude to endure and be realized in ages to come. To such a nicety is the return of capital calculated that three proprietorships will scarcely pull through one speculation, and the merchant's capital once engaged is inextricable for a century. There is also as much of that capital advanced on a population of 70,000 slaves in Demerara as on 180,000 anywhere else.

It is a circumstance which gives rise to a most pernicious feeling of jealousy with what are called the old colonies, and which is seized upon as a pretext to saddle the Demerara planter with disabilities unknown to the islands (the folly of which is only equal to its injustice), that whereas the bounty of providence has placed between the confluence of the Amazon and the Orinoco a belt of alluvion capable of furnishing with one-third the expense and labor of any other tract in the known world enough of every description of colonial produce to supply all the markets in Europe, and that in this district every million of British capital is capable, if only subjected to the common restrictions of other colonies, of producing more than double what it does in other situations. The British government willfully throws away the opportunity it thus possesses of underselling every other power in the colonial market, and purposely reduces the natural advantages of the soil to a level with unproductive and exhausted tracts by trebling the price of labor employed on it. And seeing this it is notorious that the Demerara planter, if he could procure lands at the same rate as the island planter, could send his sugar into the market at one-half the expense and completely drive out all the sugars of the foreign colonies, it yet prefers to enrich the governments of Brazil the Havana and the East by restrictions on the productive powers of its own colonies rather than by giving them a fair field for competition to command once more a monopoly of the colonial supply of Europe. If the alluvion of Demerara were cultivated at the same expense as other colonies there is no other tract in any part of the known world that could compete with it, for it could undersell them all one-half in the immense returns of its produce. This is evident, for though the restriction of the import of laborers has raised the price of labor to nearly three times its average value in other colonies, and the net returns of its produce is scarcely half that of the islands, yet does this crop and the facilities of cultivation

enable the Demerara planter successfully to compete with the other colonies and the merchant finds his capital profitably employed though obliged to advance more than double the amount on the same means of cultivation; an estate of 500 negroes in Demerara scarcely being purchasable for £10,000 though in the islands not worth £50,000.

However politic it may be, therefore, to preserve the population and cultivation of the islands in their present state, it is done at the sacrifice of the commercial independence of England, and it introduces and maintains in the colonial market foreign powers, who derive all the benefit which would otherwise accrue to Great Britain should she merely allow her colonies in South America a just and equitable means of competition. It would then be seen that the level coast of Guiana, with its inexhaustible soil, its perfect system of water carriage its peculiar appropriate climate, and its never-falling crop with merely the privilege of introducing the unprofitable and surplus slave population of the old colonies, and thus reduce the price of labor within reasonable bounds; with this privilege under every difficulty of the times and giving to other powers even the advantage of continuing the slave trade, it must drive them out of the sugar market, for it could produce that article at a lower rate than is possible to be produced elsewhere under any circumstances.

The knowledge of this fact occasions a jealousy in the old colonies from a dread of a consequent diminution of their political importance. They therefore oppose the measure of a transfer of laborers without considering that a removal of their capital to these shores is a direct means of enriching themselves and the mother country at the same time, and they allow local attachment to supersede a direct public and private benefit. For allowing Guiana to become a great sugar emporium for which it is so pre-eminently calculated, the islands are yet eligible for all the other objects of colonial cultivation which of necessity would be superseded here and the amount of their production would be little affected, though the description of it would be changed. No political considerations can effectually supersede the operations of natural eligibilities.

A country of ports and harbors will become, in spite of obstacles, a maritime power. A corn country will export grain, and a grazing country will trade in cattle; under every disadvantage Demerara has gradually relinquished every other cultivation for that of sugar, because by nature most particularly adapted for that produce, and nothing short of ruinous and unjust restriction or actual and positive abandonment can prevent the British merchant from vesting his capital in a cultivation so congenial to the soil, so certain in its profits, and so beneficial to the revenue, the shipping and the commercial interest. Demerara is the giant of the sugar market, and in the possession of any other state than the British she would allow no competition.

The average return of a sugar estate in mod-

erately favorable circumstances with 500 negroes of all descriptions attached is about 1,300,000 pounds per annum.

TIMERHIL.

They Want a Central Factory.

AUBURNDALE, Fla., March 23, 1898.

Editor Louisiana Planter: Now that the supply of sugar from Cuba seems so surely cut off for a long time to come, some of our people are taking much interest in the matter of cane growing.

That we can easily grow cane in great quantities with rich juice has long been known, and why we have not done so is because of no large mill to work up the crop. If for next year's crop we can have a suitable mill that will buy the cane, we can have 1000 acres planted, which will run twenty to forty tons per acre and average about 9 deg Baumé.

A contract will be entered into for a term of years to furnish the mill with cane at market prices.

The parties who will guarantee the 1000 acres of cane planted are thoroughly reliable and financially responsible.

It would seem to us this is a good opportunity for some sugar mill man to invest his capital safely and profitably.

C. I. PAGE.

The Factor System in Sugar.

The virtual abandonment of the "factor system" of selling sugar affords another illustration of the fact that most of the great trusts carry with them the elements of their own dissolution. The combination among sugar refiners for the limitation of the output and the fixing of the price of their product is now eleven years old. The co-operation with them of the wholesale grocers, which formed the basis of the factor system of selling sugar, dates from 1888, though it was not formally concluded till 1892. The combination among the manufacturers grew out of the impossibility experienced by the owners of old plants and antiquated processes of competing with their more progressive and better equipped rivals. So far had the economies of refining been carried in the newer establishments, that in 1886 one firm sold at a profit for export at least 100,000 tons of granulated sugars. As Mr. Warner remarked: "It was evident that the American people were in actual danger of having cheap sugar, that the owners of antiquated refining plants might, in a few years, be compelled to charge them to profit and loss, and that, unless something was done, even the Havemeyers would soon be obliged to content themselves with such returns from capital as in a fair competition with an equally enterprising refiner they and he might be able to fix."

The National Association of Wholesale Grocers had its birth in a convention held in New York, in January, 1888. One of the subjects nearest the hearts of its members was touched when the chairman said that the competition was such that grocers were selling sugars at a ruinous loss and were compelled to raise the price on other articles to meet it. The convention appointed a committee to consult with the sugar refiners, and the consultations were pro-

tracted over nearly four years, the associated grocers meanwhile being of use to the trust in bringing the Philadelphia refiners into line and in pressing on Congress the necessity of leaving a sufficient margin for the protection of the refining industry in the McKinley tariff bill. About the time that the trust found itself ready to conclude an arrangement with the grocers, it discovered that this could be more conveniently done through local organizations than through a national one. In other words, the trust preferred to deal directly with individuals and local associations, instead of leaving the grocers as one organization to deal with the trust as another. Under the sectional plan the various local organizations could be kept from combining, and each could more readily be held tributary to the trust. The original proposal made by the National Association found expression in a form of which the essential parts were as follows: "Upon the execution and return of the affidavit herewith, but not otherwise, you may deduct from the invoice one-fourth of a cent per pound less one-fiftieth of a cent per pound in addition to the rebates already made." This was to be printed at the head of each invoice of sugar made by the trust, and the affidavit accompanying it was a declaration made to be sent with the remittance, setting forth that neither the sugars thus paid for nor any sugars referred to in any previous affidavit had been sold directly or indirectly for less than the daily price furnished by the secretary of the association, and not on longer time than thirty days, nor with a greater discount than one-half of 1 per cent. for cash in ten days.

The actual agreement between the various associations of grocers and the trust, as concluded on September 12, 1893, appeared in the form of a notice to salesmen from jobbers, as follows: "On and after this date the American Sugar Refining Company will attach to every invoice of sugar sold by them to any part of the United States a certificate as follows, which the buyer must sign in order to obtain a rebate of one-eighth of a cent per pound." Then followed the certificate in these terms: "We hereby certify that we have not sold, nor will we sell, nor has any employee, salesman or agent of ours sold, either directly or indirectly, any of the sugars for which we are now remitting for less than your daily quotations, nor on more liberal terms as to credit or cash discount." The aim of the parties to this agreement between manufacturers and jobbers was to establish a boycott against any wholesaler or retailer who should handle sugar competing in price with that of the trust, or who should venture to cut the prices established by the trust. The combination continued to be effective just as long as it remained impossible for any dealer in sugar to count on a steady supply outside of the product of the trust or of the so-called "independent" refineries which have accepted the trust rules as to price and distributors' profits. The bargain was never carried out to the letter in the Gulf States, where the market was kept unstable by constant additions to the number of small refineries in Louisiana. It has recently shown signs of weakening in the

middle West, where the supply from the best sugar factories is beginning to cut a considerable figure in the available stock of sugar. The approach to completion in New York of two new and well-equipped refineries, which are to be run in absolute independence of trust methods, is the latest and most formidable menace to the factor system in the East.

It is not, therefore, surprising to hear that the combination between the trust and the wholesale grocers is breaking down, and that sugar is now being sold like any other merchandise, subject to the operation of the natural laws of trade. These laws began to assert themselves when the Sugar Trust was compelled to wage war against the methods of the ground coffee combination, by way of defending its control of its own field of operation. The factor's agreement can not survive the offering of sugar in steady and sufficient quantities at prices below those which the trust has fixed. The wholesale grocers have, of course, as powerful a motive as ever to maintain the agreement for the sake of securing a fixed rate of profit. But it will be impossible for them to evade the necessity of trading where they can buy most cheaply. The trust, on the other hand, must cut down the jobbers' profit if it has to sacrifice its own. Both parties will thus resume the relations which they held before the original trust combination was formed, to the obvious benefit of the consumers of sugar, and the manifest discouragement of the tendency to organize gigantic monopolies in restraint of trade.—*New York Journal of Commerce.*

No Limit for Sugar Prices.

It has been learned from an official source that sugar refiners are no longer maintaining their uniform system of selling only to factors. Sugar is now being sold the same as any other merchandise, viz.: by barter, and while the refiners are, of course, the sole judges of what terms they will accept, it is nevertheless a fact that they are willing to sell on different terms to different parties in accordance with their own ideas of the desirability of securing the custom of the prospective buyer. It may also be announced as a fact that the refiners have recently issued no circulars giving terms of sale.

This condition does not mean that the factor plan of sale has been officially abolished. But it does mean that large buyers who are not factors are able to purchase sugar without restrictions as to the price at which they in turn may sell, on terms equally as favorable as if they were purchasing their supplies as agents of the refiners. The factors' agreement—which ostensibly converts the wholesale grocer into a selling agent for the refiners—provides that if he observes all the conditions of the agreement (one of which is that he shall not sell on any day at a lower price than that officially posted in the refiners' office on that day), he shall, at the expiration of three months from the date of his purchase, receive a commission of three-sixteenth cents per pound. In actual operation, however, he usually receives his commission whether he maintains the price or not. The refiners do not now require from him

any sworn or signed statement that he has lived up to the terms of the factor agreement. In other words, the refiners take the position that the factor plan of sale was adopted at the request of the wholesale grocers, and they look, therefore, to the grocers to be responsible for its proper operation.

A considerable number of complaints have recently been received by refiners that wholesale grocers have not been fully maintaining prices. To these complaints refiners have replied, outlining their position substantially as above, and in the West particularly a number of important wholesale houses have openly and unequivocally cut loose from the factor plan. A representative of the refiners when asked yesterday whether these firms would be able to purchase their supplies of sugar on as advantageous terms as when they received consignments as agents of the refiners, said that it would be quite a fair statement that "they will probably have no difficulty whatever in getting all the sugar they require. They are simply doing openly what others are doing secretly."

For several months the factor plan of selling sugar has, in many States, been in nominal operation only, notably in Illinois, Michigan, Ohio, Indiana and also in Baltimore.

In Illinois and Indiana the equality freight rates have been reduced almost one-eighth of a cent per pound, leaving only about one-sixteenth of a cent per pound margin of profit or commission for refiners' factors. The cause of this open reduction is the public announcement of the withdrawal of the W. M. Hoyt Company, one of the largest wholesale grocery houses of Chicago, from the equality system of sale. Following is the company's announcement, as published in its own house paper:

"We have withdrawn from the equality plan of selling sugar, and in future our prices will be made f. o. b. Chicago.

"We adopted the plan because we were forced into it, and we withdraw from it as the opportunity presents itself for us to do so. What effect our withdrawal will have on the sugar plan a few days will determine, but we hope it is the beginning of the end of the rotten business.

"Our patrons well know where we stand and have always stood in regard to contract goods. They know we are opposed to them, and that we have submitted to dictation only when no alternative was left for us. We hope the breaking up of the equality plan of selling sugar will be a blow that will wipe out of existence every contract selling price on the list. Honest men are tired of trusts and combines, and sooner or later manufacturers will be compelled to abandon their dictatorial methods. We adopted the trust plan of selling sugar December 30, 1895, and on that date declared in this column:

"It is with regret that we hereby inform our patrons that we have felt compelled to adopt the factor plan of selling sugar. Our fight has been long, hard and honest for the right to sell our goods to our customers at the lowest price we could afford, and the right to be sole judge of that question. The odds have been against us, but we have managed to get

along and fill our orders promptly with some saving to our friends. It has come to this, that we are now confronted with a prohibitive discrimination by the trust that can be avoided only by submitting to their will. Could we get along by handling foreign brands the fight might be continued, but our patrons demand American sugars, and we must have such as our trade requires. We have accepted this condition under protest, at the same time still asserting the truth of the principles heretofore maintained by us."

Referring to the situation in St. Louis the *Republic* of that city says:

"Developments within the past few days indicate that the wholesale grocers of this city and Chicago are lining up for a fight with the Sugar Trust. The price of sugar has been reduced to a point where the jobbers have to handle it at bare cost, and as every grocery jobbing firm in the city, save one, is bound by what is known as the equality plan, several of them are becoming restive and threaten to go to war.

"For several months F. H. Krenning & Sons, a large jobbing house on North Third street, has refused to bow to the mandate of the sugar combine, and for that reason the trust and its allies have placed the firm under the ban, and refused to sell it a pound of their product. As a result, the firm has been selling only foreign sugars and the war has gone merrily on.

"Whether any more St. Louis firms will pull out can not be said at this time, but several are ready to cut loose the moment they see that they can do so without injury to their business.

"It is claimed that the equality plan adopted by the trust has built up the country jobber at the expense of the wholesalers in the large cities. For some time past there has been more or less feeling in the Wholesale Grocers' Association of this city over the way the equality plan is working out, but the association has done nothing to alleviate the cause of complaint."—*New York Journal of Commerce*, March 21.

The Sugar Equality Plan.

The distribution of sugar under the "equality plan," a plan arranged and suggested by the jobbers themselves in the first instance, and accepted by the sugar trust under protest (?), has not after all proved such a benefit to the individual jobber as was anticipated. Quite a number of the St. Louis jobbers are dissatisfied with the arrangement, although they hesitate to express themselves, and do not care to cross the border line and come out in open hostilities to the trust. For some months past, however, the conviction has been growing in the minds of the St. Louis and Chicago jobbing grocers that "things are seldom what they seem—skim milk masquerades as cream," etc.

Whether it is a "shady" arrangement after all depends upon "whose ox is gored." Jobbers with an assumed well-established city trade are satisfied, while on the other hand jobbers whose business is principally in the interior complain that it tends to the upbuilding of the small interior jobber and restricts

legitimate competition. The sugar and coffee end of the grocery business comprises almost 50 per cent. in dollars and cents of a grocer's business, and where this is accomplished under the equality plan, it is safe to assume that the balance, and that the most profitable end, goes with it. There are several grocery houses in St. Louis acting independently of the "equality plan," and it is a singular feature that they have been very successful in spite of the covert opposition of the advocates of the equality plan.

What the outcome will be at this writing it is hard to determine. A cut of 13 cents per 100 pounds has already been made in the Illinois sugar freight rate book, and in other Western States changes have been made to nullify opposition. A fight is evidently on. With the anticipated completion of the Arbuckle and the Doscher sugar refineries in the early fall, the recalcitrant jobbers who are springing out of line with the trust will have plenty of backing and will be able to obtain all the sugars they want. In the meantime, if the signs of the past year count for anything, the men who have been outside of the agreement in this city have not suffered for want of sugar and are credited with doing a most successful business.—*St. Louis Grocer*.

Sugar-Eating Nations.

The sugar crop of the world amounts in a normal year to about 8,000,000 tons, of which the larger part, about 4,500,000 tons, comes from beets and the balance, 3,500,000 tons, from sugar cane. Of the latter, the largest proportion comes from the West Indies and a large amount from the island of Java. Among the countries producing beet sugar, Germany comes first with about one-third of the world's crop; then Austria with about as much, and then France, Russia, and Belgium and Holland together, with substantially the same quantity.

In respect of the production of beet sugar in the United States, there has been a vast increase since the establishment of the McKinley tariff in 1890. The year previous the American product was 2800 tons. Two years later it was 12,000 tons. Four years latter it was 20,000 tons. Last year it was 43,000 tons, and the product is on the increase. The McKinley tariff established between July 1, 1891, and July 1, 1905, a bounty to be paid by the United States government to sugar producers, with a view of stimulating the industry and compensating those engaged in it for the changes made in the duty upon imported sugar.

Among scientists the opinion has been general that a moderate amount of sugar, like a moderate amount of salt, should enter into the dietary of the people of each nation; but it is only when the figures of the consumption of sugar are examined that it is seen that the quantity consumed varies radically, and it is a curious fact that in those countries in which the maritime spirit—the spirit of navigation, commerce, travel and colonization—is strong, there is a very considerable consumption of sugar per capita, whereas in those countries in which these qualities are not predominant among the inhabitants the consumption is

smaller. In England, first among the maritime nations of the world, the consumption of sugar is 86 pounds a year for each inhabitant. In Denmark it is 45, in Holland 31, in France 30, and in Norway and Sweden 25, whereas in Russia it is only 10, in Italy 7, in Turkey 7, in Greece 6, and in Servia 4. The consumption of sugar seems to have very little connection with or relation to the production of sugar, for in Austria, the sugar product of which is large, the average consumption is only 19 pounds, while in Switzerland, in which there is no production to speak of, it is 44. And another curious phase of the matter is that there is a great disparity in the consumption of sugar in the two tea-drinking countries—England and Russia. The large amount of sugar consumed in France is attributed, in part, to the fact that the French confectioners and candymakers, and more especially those doing business in the city of Paris, use in their trade enormous quantities of sugar in a year, adding abnormally to the average consumption of sugar in the French republic.—*N. Y. Sun*.

Trade Notes.

The Living Age.—No one who is interested in the best contemporary French literature can afford to miss the series of sketches and stories by Paul Bourget, which will begin in *The Living Age* for April 2. These sketches have been but recently published in France, and this is their first appearance in English dress. They are translated for *The Living Age* by William Marchant. They are extremely clever and characteristic. Address The Living Age Company, Boston.

Personal.

Mr. J. K. Garr, a prominent sugar planter of the lower coast, was registered at the St. Charles Hotel on Monday.

Mr. Carroll Barton, of Magnolia plantation, in Assumption parish, was a Sunday guest at the St. Charles Hotel.

Mr. A. H. Gay, Jr., and Mrs. Gay, of St. Louis plantation, in the parish of Iberville, were in the city on a visit a few days ago.

Mr. J. K. Tucker continued to manage the Armant place during the past season, and is reported to be increasing all the time in his skill and ability as a plantation manager. Mr. Tucker recently bought an interest in the Oak Alley place, which adjoins the Armant, and if he does as well by his own place as he does by that of Colonel Miles' Oak Alley has a bright future before it.

Mr. H. A. Chapin, the well-known representative of the Newell Universal Mill Company, arrived in the city during the past week and registered at the St. Charles Hotel. Mr. Chapin says that the National Cane Shredder is being rapidly adopted as an adjunct to the mill in all the cane-growing countries of the world, they having recently made extensive installations in Java and South America. Mr. Chapin expects to get his share of the Louisiana business and will doubtless do so. Among the forty-odd machines in Louisiana last season no accidents of any sort, he says, were reported.

APRIL 2.

WEEKLY MARKET REPORT.

1898.

	March 26.	March 28.	March 29.	March 30.	March 31.	April 1.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.	
SUGAR.									
Open Kettle.									
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/8 @ 3 1/8	Quiet.	
Strict Prime	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 1/4 @ 3 3/4	2 7/8 @ 3		
Prime	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 1/4 @ 3 3/4	2 7/8 @ 3		
Fully Fair	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	2 3/4 @ 2 1/4		
Good Fair	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	2 3/4 @ 2 1/4		
Fair	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	2 1/4 @ 2 3/4		
Good Common	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	2 3/4 @ 2 3/4		
Common	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	3 3/4 @ 3 1/4	2 3/4 @ 2 3/4		
Inferior	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 2 1/8	Steady.	
Centrifugal.									
Plant'n Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ 4 1/4		
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ 3 3/4		
Choice White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/4 @ 3 1/4		
Off White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Choice Yellow	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	3 3/4 @ 3 1/4		
Prime Yellow	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	3 3/4 @ 3 1/4		
Good Yellow	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	4 3/4 @ 4 1/4	3 3/4 @ 3 1/4		
Seconds	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4	2 3/4 @ 3 1/4		
MOLASSES.									
Open Kettle.									
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	Quiet.	
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	Quiet.	
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Centrifugal.									
Fancy	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14	— @ 14		
Choice	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13	— @ 13		
Strict Prime	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12	— @ 12		
Good Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11		
Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10		
Good Fair	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9		
Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8		
Good Common	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7		
Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6		
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5		
SYRUP.									

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Strong.
Centrifugals, 96 ^o	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.84 @ —	4.54 @ —	
Standard A.	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.72 @ —	4.22 @ —	
Cuba, 96 ^o , Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50 ^o	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 0d.	Steady. Firmer.
A. & G. Beet	9s. 0½d.	9s. 0d.	9s. 0d.	8s. 11½d.	9s. 0½d.	9s. 1½d.	9s. 0d.	

NEW ORLEANS REFINED

Cut Leaf	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5	Strong
Powdered.....	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5	
Standard Granula'd	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5¾	— @ 5¾	— @ 4½	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 4½	— @ 4½	— @ 4½	— @ 5	— @ 5	— @ 5	— @ 4½	
Crystal Extra C.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Mar. 28	Tons	266,670
At four ports of Great Britain to	Mar. 19	"	78,500
At Havana and Matanzas to	Mar. 28	"	113,500

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APRIL 1, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	828	6,002	1,082
Sold	828	6,111	1,082

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO APRIL 1, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	21,866	1,856,529	180,247
Sold	21,866	1,880,660	180,247
Received same time last year	85,812	1,181,328	214,616

APRIL 2.

WEEKLY MARKET REPORT.

1898.

RICE.	Mar. 26.	Mar. 28.	Mar. 29.	Mar. 30.	Mar. 31.	April 1.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	2 00@4 25	2 00@4 25	2 00@4 25	2 00@4 25	2 00@4 50	2 00@4 50	2 00@4 25	No offerings.
CLEAN, Fancy.....	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6	
Choice.....	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	
Prime.....	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	
Good.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	
Fair.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	
Ordinary.....	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	Very strong.
Common.....	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.	
No. 2.....	1 $\frac{1}{2}$ @2	1 $\frac{1}{2}$ @2	1 $\frac{1}{2}$ @2	1 $\frac{1}{2}$ @2	1 $\frac{1}{2}$ @2	1 $\frac{1}{2}$ @2	1 $\frac{1}{2}$ @2	
BRAN, $\frac{1}{2}$ ton.....	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	12 00@—	
POLISH, $\frac{1}{2}$ ton.....	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	17 00@18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APR. 1, 1898

	SACKS ROUGH.	BBLs. CLEAN.
Received.....	2,526	—
Sold.....	1,792	2,407

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO APR.
1, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BBLs. CLEAN.
This year.....	448,025	8,880
Last year.....	376,370	8,859

Sugar.

At the close of the week a firmer feeling pervaded the local sugar market, and a good demand existed. Arrivals were promptly absorbed.

Molasses.

No open kettle goods in first hands. Centrifugals quiet.

Rice.

At the end of the week both rough and clean rice were strong, with offerings light and receipts from plantations limited.

Lehi's Adieu to Mr. C. A. Granger.

On Wednesday evening a number of the employees of the sugar factory, and their wives and a few invited guests met in the bank building in social gathering in honor of C. A. Granger, the retiring superintendent of the factory, who left here on Saturday to take charge of the new factory which is to be built at La Grand, Or.

The gathering was a most pleasant and enjoyable one, making the honored guest feel that he has a warm place in the hearts of those whom he has so successfully worked with since the start of the factory. The evening was spent in playing games, speech-making and singing. A few minutes before 10 o'clock, as the party was leaving the bank for the Union hotel, Mr. Granger presented each one of the party with a lovely bouquet. When all had gathered at the hotel the party sat down to a most inviting supper, which had been prepared by Mrs. Stoddard, the lady of the hotel, who, on all such occasions, does her best to please the eye and satisfy the taste.

After this elegant repast, Agricultural Superintendent Austin gave the opening address, in which he said that Mr. Granger, during his connection with the Utah Sugar Company, has made a record that any one could well be proud of, and that a great deal of the credit for the success this factory has attained is due to

the skill and ability of Mr. Granger. During the five years of his superintendency they have manufactured enough sugar, allowing twelve tons to the car, to make a train fifteen miles in length, and that the beets raised during this period, counting twenty tons to the car, would make a line fifty-three miles long. He also briefly related his personal association with him, stating that he had always found Mr. Granger a man of integrity, whose determination was at all times to deal justly and honestly with his fellow-men. Manager Cutler was the next on the programme, and he prefaced his remarks by reviewing some of the obstacles that had to be encountered during the infancy of the Utah sugar industry. That the record of this factory would go down in history as the first factory in all the world to manufacture sugar beets grown by irrigation. He spoke of how the business world eagerly watched its operation the first few years, believing that it was impossible to grow sugar beets successfully by irrigation. He endorsed the remarks of Mr. Austin as to Mr. Granger's skill and ability as superintendent. Mr. Cutler closed by presenting Mr. Granger a gold watch chain with the compliments of the employees. In response to this little memento, Mr. Granger thanked the employees for their demonstration and said as long as his life lasted he and Mrs. Granger would retain and appreciate this little token as a remembrance of their associations with the employees of the Utah Sugar Company.

Mr. Granger neatly turned the compliment paid him by Mr. Austin, stating that a great deal of the success achieved by the Utah sugar industry was due to the unity that existed among its employees, saying that where dissensions occur success could not be attained. He referred to how Manager Cutler had labored very assiduously from the time the establishment of the industry was first agitated to the present time, and said through his untiring efforts many things that were termed impossibilities had been met and overcome, and to-day this factory is pointed to as the ideal factory of America. Mr. Granger alluded to his association of Mr. Cutler and the employees of the company, stating they had been of the most pleasant nature, and wherever his lot may be cast in the future, he

did not expect to meet a set of men who would labor more energetically and more harmoniously than do the employees of the Utah Sugar Company. In closing Mr. Granger eulogized the present superintendent, Mr. H. A. Vallez, and spoke very highly of his capabilities and his fitness to fill the position. Mr. Vallez briefly outlined the sentiment existing in other localities in regard to the success achieved by the Lehi factory under Mr. Granger's management. Book-keeper Evans delivered the closing address, in which he said that Mr. Granger had labored long and earnestly for the advancement of the Utah sugar industry, and that under Mr. Granger's supervision had been demonstrated to the world that one of the most extensive commodities, heretofore practically unknown in the United States, could be produced. Mr. Evans spoke in the highest terms of Mr. Granger as an agricultural superintendent as well as superintendent of the factory, and said in whatever position Mr. Granger had been placed during his association with this company he had proven himself equal to the occasion.

After wishing Mr. Granger the best of success in his new field of operation, the party broke up at 12 o'clock.—Banner, March 15.

Hawaiian Annexation Affects Beet Sugar Culture.

A telegram has been received from President Oxnard, of the Beet Sugar Company, dated at New York, in which he withdraws the anti-Hawaiian annexation clause in contracts with beet raisers. This clause provided for a reduction of fifty cents per ton in case Hawaii was annexed. It was bitterly fought by members of the Growers' Association, who declared they could raise no beets unless it was withdrawn.—N. Y. Journal Commerce.

Col. John R. Gheens, of the Golden Ranch plantation in the parish of Lafourche, was in the city on a visit a few days ago and registered at the St. Charles.

Mr. Quinton Hogg, of London, a gentleman largely interested in sugar planting in the West Indies, was in New York during the past week, and expected to leave shortly for a visit to Louisiana, where he contemplates investing in sugar lands.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98.

WANTED—A CARPENTER, WITH LARGE EXPERIENCE in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address Box 16, Ponchatoula, La. 3-26-98.

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98.

WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assistant boiler in some large factory. Best of references given. W. B., Box 62, Donaldsonville, La. 3-31-98.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98.

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Palmettoville, La. 3-18-98.

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98.

WANTED—SUGAR EXPERT, 25 YEARS' EXPERIENCE in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98.

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98.

WANTED—A PLANTATION BLACKSMITH, wheelwright and carpenter; must be married and sober; to the right kind of energetic man steady employment; Milly plantation. LEBLANC & DANOS, Plaquemine, La. 3-10-98.

WANTED—A PLANTATION HOSTLER, sober and capable; must be married; steady employment to the right kind of man on Milly plantation. Address LEBLANC & DANOS, Plaquemine, La. 3-10-98.

WANTED—SUGAR CHEMIST DESIRES POSITION at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98.

WANTED—A POSITION AS CHIEF ENGINEER and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98.

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98.

WANTED—EXPERIENCED GERMAN AGRICULTURIST, beet sugar culture a specialty, desires position; best references. Address Box 309, Irvington, New Jersey. 3-5-98.

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98.

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Piety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98.

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98.

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98.

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97.

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98.

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandize store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98.

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; he best of references. Address EXPART, this office. 2-5-98.

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2435 Chartres street. 2-5-98.

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98.

WANTED—TWO YOUNG MEN, HAVING had considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98.

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2620 Dauphine street. 2-3-98.

WANTED—A POSITION AS ASSISTANT ENGINEER; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louisa street. 2-3-98.

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98.

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS, Giesmar, La. 1-28-98.

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98.

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98.

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La.

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBER, Central, La. 1-20-98.

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address GOTTLIEB KOELLE, 1938 St. Louis street, city. 1-21-98.

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. McCRACKEN BROS., Bala La. 1-20-98.

WANTED—POSITION AS STORE OR BOOK- keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address MAX. P. O. Box 1066, New Orleans. 1-17-98.

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98.

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98.

WANTED—A POSITION AS CHIEF OR AS- sistant engineer; has had fourteen years' experience and can furnish first-class references. Address F. O. W., Larcenville P. O., La. 1-18-98.

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-15-98.

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98.

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. GEO. H. DOUGLASS, Covington, La. 1-11-98.

WANTED—POSITION ON SUGAR PLANTA- tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98.

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98.

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98.

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address P. O. BOX 422, Logan, Utah. 1-11-98.

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. Franklin street, city. 1-13-98.

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98.

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98.

WANTED—POSITION AS ASSISTANT MAN- ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97.

FOR SALE

BY THE

ELLINGTON PLANTING CO., Ltd.

219 NORTH PETERS STREET,

One Leeds Sugar Mill and Engine.

Front Mill—3 rollers, 30 in. by 4 ft. 8 in. journals 9x12 in. Back Mill—2 rollers 42 in. by 5 ft., journals 14 x 20 in. Compound gearing 12 in. face. Engine 18 in. by 5 ft.

One Yaryan Triple Effect, each with 55 three inch tubes.

All in first-class condition.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER, A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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AND

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6 inch.....	28 00	70 00	105 00	140 00
7 inch.....	32 50	81 15	121 75	162 50
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Sugar Planting in Barbados.

In a recent review of the sugar industry of Louisiana *Le Journal des Fabricants de Sucre*, of Paris, expressed considerable wonderment at finding that there were still some horse mills in operation in Louisiana. As we are now the second sugar-producing country in the world and are beginning to use large figures in describing our production, we in turn are struck with the smallness of some of the sugar factories given in the data that come to us from the West Indies. The subjoined clipping from the *Demerara Argosy* concerning a little sugar plantation in Barbados is quite striking. The possibility of a reciprocity treaty with the United States is sufficient to keep this little ten-acre plantation still in the sugar industry, the judges deciding that it would be criminal to abandon the estate under the present hopeful outlook. The clipping is as follows:

The figures in a case brought before the Court of Appeal, Barbados, last week, show how a sugar estate in the neighboring colony can get legal protection when the nominal owner is in financial difficulty, no matter how small the estate may be—sufficient, that sugar is made upon it. The motion before the court was that the cultivation of the estate should be abandoned, as the receiver had spent \$457 upon it last year and the crop had realized only \$161. The area was ten and one-third acres, of which two and one-half were in "rab land." The estate would not fetch more than £8 an acre. The motion was opposed; and counsel argued that though last year's crop was poor, the crop this year was likely to be a good one—something like eight hogsheads. Such being the case "it would be criminal to abandon the estate," especially "with the great prospects of a reciprocity treaty with America." The three judges decided that the estate should have the opportunity of getting the advantage of reciprocity.

The Louisiana Cane Crop.

Another cool wave, accompanied and preceded by more or less rain, was chronicled throughout the sugar district this week, but in no locality does the temperature seem to have fallen sufficiently low to inflict serious damage on the crop. While the growth of the young cane has been checked, and its advancement is not so rapid as is gener-

ally the case at this season, which is proverbially one of warm sunshine and refreshing showers, the showing made is excellent, taken as a whole. Spring plant alone comes in for some criticism, owing to the gappy stand it is exhibiting in some localities, and which is generally believed to have been caused by the exceedingly wet and inclement weather which prevailed when it was planted, rather than to any defect in the seed cane itself.

The Change in Sugar Selling Methods.

In a recent letter to a gentleman in the West Indies, which we find printed in *The Christopher Advertiser*, we find a very lucid statement of the wonderful change that has come about in sugar selling methods during the last decade or two, and of the evil results that now follow from sales made without taking these new features into account.

The letter is written by Mr. John Farr, a well-known New York sugar importer and a merchant of the highest standing. He discusses the situation in his letter as follows:

In other times, when we had no sugar trust, and when there were comparatively few beet sugars, and cables were rarely used, it was the custom for planters and shippers from all parts of the world to consign their produce for sale to such markets as afforded the best advantages. The sugars were sampled on arrival, submitted to a large number of competing refiners and were sold on their merits to the refiners offering the best price. Brokers' offices were then busy places, samples of sugar arriving from Cuba, Java, or the other sugar producing countries were exposed for sale on their counters, and the brokers were enabled to exercise their skill as salesmen in getting the best results. These are what we can truthfully refer to as the good old days, but "*Tempora mutantur*" and most of the world has changed with them.

The immense growth of the beet sugar industry in Europe brought about the loss of the English market for cane sugar, and the natural tendency of capital to seek consolidation and reduce expenses, which resulted in the formation of the sugar trust, and thereby destroyed all competition, has almost ruined this market

for shippers of sugar. Most producing countries have recognized this fact and nine-tenths of the sugar received in this country are sold prior to shipment at prices satisfactory to the seller, with the result that sugars arriving here unsold are surplus supplies, and are practically at the mercy of the refiners, who use them as a club with which to depress prices in the main producing countries as much as possible. Cuba, Java, Demerara and Barbados, all recognize this fact and their sugars are sold locally at an average price far better than could be obtained if shipped here unsold. There are some places, however, which don't seem to see things as they are, and which still continue to follow their old-fashioned ways, to the disadvantage of themselves and of all other sugars, which are naturally affected by the low prices realized and the low quotations reported on the sale of their produce here. Not only do they ship them here unsold, but, worst of all, they consign them to their flour merchant, or the man whose business is bananas, coffee or coconut oil, or in other words to the so-called "general commission merchant." This merchant, whose knowledge of the sugar market consists of what he reads in the papers, telephones to his brokers that he has 500 bags of sugar, just in, per S. S. —, and to "go ahead and sell it." The refiner is familiar with the method, has been waiting for the steamer to arrive, and promptly offers him less than the market, and on the brokers reporting this bid he replies by telephone that it is "not worth holding for 1-16 or 1-8 difference, and to sell," thus creating a lower market, not only here, but sentimentally affecting all other West India markets. He then writes out a plausible letter about his prompt sale, etc.

During the last two weeks we have seen the prices of sugar decline three-sixteenths to one-quarter cent per pound on forced sales of this character of two cargoes of San Domingo sugars, and a few lots from the British West Indies, made in this way by a dozen of these so-called "general commission merchants," and the pending arrival of a cargo of San Domingo or British West India sugars on consignment is looked upon with natural anxiety, for it is a "*sine qua non*" that, unless there is a particularly strong market, a decline or a check in any advance is always sure, and a feeling of relief is experienced if the sugars realize the current market value.

In these days, if a man has trouble with his eyes, he goes to an eye doctor, not to a general practitioner, and if the conditions are so unfortunate that it is necessary for a planter to send his sugars up to be sacrificed at the altar of the trust, let him at least ship his sugars to a sugar merchant, whose specialty is to be familiar with the conditions which underlie the market, and who will use his knowledge and experience and judgment for the benefit of his clients, not only in connection with the lot in hand, but in protecting the market, as far as possible, for the balance of their crop.

This slipshod method of sending consignments to "Tom, Dick and Harry" has done much to add to the natural depression of the sugar trade, and many a West Indian merchant

may trace the loss of his estates to the fact that his produce has been improperly marketed and handled here.

Mistakes are, of course, natural, and criticism is easy, but the men who make a business of sugar and nothing else are less likely to err than those who are not, from the nature of things in touch with the situation, and my object in writing this is to strongly urge upon you the importance, both to yourself and your fellow-planters and the trade generally, to place your shipments in the hands of the people who make sugar their business, if your market does not afford the opportunity of selling your sugar locally.

How Pumping Masse Cuite May Injure Crystallization.

HAWAII, H. I., March 9, 1898.

Editor Louisiana Planter: In your issue of February 19 I see that you have printed that letter of mine, *i. e.*, "No. 4 Sugars in Tanks;" well, never mind.

Since writing we have filled four compartments with No. 4 sugars. The masse cuite was boiled in a pan, as usual, and drained through a 6x12-inch cast iron flume to the tank. The result has been satisfactory, the masse cuite graining nicely and not foaming, as it did after being pumped.

I now consider the ill effects produced through pumping to have been caused as follows:

The 4-inch discharge pipe from pump discharged the masse cuite at the top of the tank, each stroke causing the molasses to be sprayed, or spattered, from the pipe until it reached the bottom. As hot water is sometimes cooled by being sprayed into the air, the same effects took place with our molasses; and if this was boiled stiff, and at a low temperature, it was sufficiently cooled to form fine grains. Had our discharge pipe reached the bottom of the tank the effects might have been different.

We are drying No. 4 sugar from the tank now: boiled in September last. It is good sugar, and centrifugals well; the reason for this being that we boiled lighter, and the cooling did not cause the molasses to become thick enough to form grains. From our present experience I think we have solved the causes for our troubles of last year, and in future will try and discharge molasses from a pan in as large a volume and with as little agitation as possible.

OCCIDENTAL.

Trade Notes.

C. S. Burt Company.—This enterprising firm, which handles here the celebrated Stirling boiler, reports to us that the popularity of these boilers continues to increase, and that they are being adopted rapidly by the sugar planters, both in Louisiana and elsewhere, their reasonable cost, excellent construction and splendid results in steam production making them prime favorites everywhere. Among recent contracts they mention to us that they have closed a deal with that well-known planter, Mr. Florian Waguespack, for 250 horse-power Stirling boilers to be erected

on his Laurel plantation. The boilers will be for the bagasse burners, and will be fitted with auxiliary furnaces for coal. Mr. A. L. Monnot, of the Vaufrey plantation, has also contracted with them for 1000 horse-power Stirling boilers. Mr. Monnot takes out every old boiler in his house and replaces them with the Stirling. This is doing well, and we congratulate the Stirling Company, and their energetic agents, the C. S. Burt Company.

Belt Dressing.—The Whitney & Sloo Company desire to call the attention of all users of belts to their POLAR BELT DRESSING, which they claim is a perfect leather preservative, giving life and firmness to the fibre and durability to the belt, while the power applied is fully transmitted and much wear and strain on the machine avoided. The belts are kept soft and pliable and will not crack, while the tension is not affected by the changes in temperature. This dressing is recommended also for use on rubber belts. It is put up in 50, 75 and 100-pound cans and the Whitney & Sloo Company will be glad to send descriptive circulars concerning it.

Rice as a Money Crop.

Mr. Henry Well, in a letter to the Goldsboro (N. C.) *Argus*, urges the farmers of North Carolina to put every available acre into rice culture. He says:

"There is one crop which bids fair to be the most profitable one under existing conditions, and that is the rice crop—a good many years—for reasons easily explained. Statistics show that the United States has only grown about one-fourth of the rice she consumes, and of late years barely one-eighth. One reason is that this crop can only be grown in a small portion of about four States, to-wit, North Carolina, South Carolina, Georgia and Louisiana. In the second place, the low import duty on rice for many years past has made it easy for China, Japan and other rice-growing countries to invade our markets and sell the article at such low prices as to make it unprofitable for our farmers to compete with them. Now the conditions are changed. Our last Congress put a duty equal to 34 cents per bushel on rough rice. This, with the freight charges from foreign countries, will give our planters a protection equal to fifty cents per bushel, and just as long as this duty remains in force our rice planters may gather a rich harvest. Good upland rice was readily selling at ninety cents per bushel this season, while lowland rice sold as high as \$1.30 per bushel. The secretary of the Carolina Rice Mills in this city informs us that they bought the rice crop of four farmers living on the Cape Fear river for which they paid, in the aggregate, the sum of \$30,500. One planter in Wayne county sold his crop, grown on about forty acres, for \$1800, and several others in this county realized from \$30 to \$50 per acre. Aside from these sums realized, rice straw is selling at \$8 per ton, and reckoning two tons per acre is a moderate estimate. The average of rice planted should realize \$50 to \$60.—*Gueydan News*.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: The weather of the past few days has been unusually cool for the season, the mercury getting down to 40 deg. both Tuesday and Wednesday nights, according to Local Observer Park's official record. At other points in the parish still lower temperature was recorded. Hon. Henry McCall reporting that the mercury in the thermometer on the north exposure of the Evan Hall residence descended to 36 Tuesday night, dangerously near the freezing line. It is hoped the present cool wave will be the last of the season, and that the warmer temperature needed to propagate the growth of sugar cane will henceforth be vouchsafed us. My thermometer marks 56 deg. at 10 o'clock this (Thursday) morning, with a rising tendency.

A rainfall of 0.60 of an inch on Monday yielded a quantum of moisture to the cane fields of this section which has been very beneficial, and occasional repetitions of the visitation, accompanied by the rising temperature just suggested, would vastly improve the outlook with reference to our staple crop.

Observer Park's meteorological summary for March shows a total rain precipitation of only 0.55 of an inch, and a light frost on the morning of the 5th ultimo. Since the beginning of April there have been two rainy days, the precipitation having reached 0.25 on the 1st, and 0.60 on the 5th instant.

The river has risen just two and one-half feet during the past week, the gauge showing this morning a stage of 23.5 above extreme low water mark. The figures on the same date last year were 28.5 feet. One observer stands pat on his prediction of a 28-foot stage from the coming freshet, and thinks the difference, if any, will be in the nature of a shortage rather than an excess.

The monthly meeting of the Ascension Branch of the Sugar Planters' Association of Louisiana was held last Tuesday and proved very satisfactory in its character and results. The president, Hon. Henry McCall, occupied the chair, Secretary-Treasurer F. B. Lemann was at his post, and the following members were present: Messrs. Bernard Lemann, Capt. John T. Nolan, Walter I. Barton, Myer Lemann, E. N. Pugh, Henry C. Braud, Dr. W. M. McGalliard and L. E. Bentley. After reading and approval of the minutes of the February meeting, reception of the treasurer's report and consideration of the financial condition of the association, attention was given a communication from a number of ladies, belonging to the families of members, asking the privilege of visiting the association's reading room at specified hours daily, Sundays and meeting days excepted. The proposition was discussed to some extent, and on Mr. Brand's motion the communication was respectfully received and laid over for further consideration at next meeting.

It was deemed proper that an innovation of such importance should be given mature thought, and that absent members should have

an opportunity of expressing concurrence or dissent before the matter was definitely decided.

The subjects of the annual ball and dinner were next debated, and it soon became apparent that the sentiment in favor of giving both entertainments was virtually unanimous as to the members in attendance. Mr. Braud moved that the president name a committee of seven on ball, with full power. Mr. F. B. Lemann seconded the motion, which was adopted without opposition. Mr. Barton moved for a committee of five on dinner, with unrestricted authority, and Mr. Pugh's second was followed by unanimous concurrence in the motion. President McCall appointed the following:

Ball committee, F. B. Lemann, Paul Leche, W. I. Barton, C. Kline, G. A. Gondran, Jno. T. Nolan, Jr., W. W. Barron.

Dinner committee, Dr. John D. Hanson, Henry C. Braud, Col. A. D. Vega, L. E. Bentley and Lem. Levi.

The ball will probably take place during the last week of the current month. The dinner will be a closing feature of the annual meeting on the first Tuesday of May, the 3d proximo, when the election of officers is to be held. These entertainments will be looked forward to with great interest by the community, and are expected to exercise much influence in promoting the welfare of the virile branch of the Louisiana Sugar Planters' Association.

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been variable during the past week, but on the whole satisfactory, particularly as a good rain fell Monday night. It was badly needed, for not only was March a dry and windy month, but much of the ground had been planted in cane while it was wet and became so closely packed that the young cane could scarcely come through, and land ploughed for corn was very rough. The rainfall for March was .72, highest temperature 92 degrees and lowest 32.

There is still some complaint about the spring plant, and we are told that the trouble is not due to the seed cane, but to the circumstances or condition of weather attending and immediately following its planting. Stubbles are in splendid condition, and so also is the fall plant. The bad cane seems to be that which was planted a little before a very heavy rain and the injury is attributed to the rain.

Corn is up to a full stand and so far we have not heard of a single instance where it has had to be replanted.

The Iberville South, of Plaquemine, in commenting on the fact that one day last week two Western steamboats put off 140 packages of freight at Plaquemine, said, "this speaks well for our merchants," but failed to add what it told about our planters and farmers. By far the greater number of these packages were feed, and when we consider that only a part of that for Iberville parish is landed at Plaquemine, it will be seen that an immense

amount of produce comes to this parish which with a little more care and attention could be raised at home without interfering with the sugar output in the least.

Mr. George R. Murrell was at New Orleans this week presumably on the lookout for the betterment of the Tally-Ho sugar house. Among other improvements to be put in there this year is a crusher, and the work will not cease till Tally-Ho arrives at that degree of perfection beyond which there is none.

The J. Supple Sons Planting Company, Limited, sold their old five-roller mill to Messrs. B. F. Bourgeois & Sons, of Pointe Coupee, who will erect it in their Stonewall sugar house. This mill was first erected at the Cora plantation, and after doing good service there for several years was sold to Mrs. Catherine Supple, who used it at the Catherine sugar house in connection with another three-roller mill for five years. It is a splendid mill and was taken out only to make room for a larger plant, and it will insure the Messrs. Bourgeois a first-class extraction.

Hon. N. C. Blanchard, wife and daughter were the guests of Hon. James A. Ware, of Belle Grove, this week.

Mr. Edward Desobry, of Plaquemine, formerly proprietor of the Irion plantation, is devoting his attention now to truck farming.

The police jury at its last meeting passed an ordinance making the owners of sheep running at large on the public road liable for any damages done to growing crops by the sheep.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: If Chief Clerk Kerkam can't do any better than he has been doing during the past week he ought to turn his attention to some other vocation. The planters are beginning to complain, and justly so, too, of the miserable weather with which they have been afflicted for some time past. Field work—that is, where any has been done at all—has been prosecuted under unfavorable circumstances. Last Monday evening, after a warm, showery day, the wind veered to the northwest, bringing the usual cold spell, which has prevailed up to this writing (Thursday morning), and which has kept the mercury chasing back and forth from the 60s to the low 40s, a temperature not at all conducive to the rapid growth of vegetation. Owing to the cold, wet ground, cane has been almost at a standstill during the past three weeks. One planter remarked a few days ago that it had been that long since he had struck a lick of work in his field. Another complained that he had not yet been able to plant a grain of corn. And so it goes. Complaints of every sort come in thick and fast.

Manager Rivault, of Cinclare, is one of the few who has no kick to make. He says the prospects are all flattering down on Cinclare, and that as soon as the prevailing spell of bad weather passes away, everything will be found in good shape in this neck of the woods. There can be no doubt about the fact that there will be a decided improvement in the status of the cane as soon as warm, dry

weather sets in. Quite a number of planters were attracted to the court house last Monday as witnesses in the suit of A. J. Sharp *et al.* vs. Aug. Levert, involving certain drainage rights in connection with the two plantations of which these gentlemen are proprietors. The outcome of this suit, which is still pending, will be watched with intense interest by several planters in the lower portion of the parish, who are vitally interested in it, no matter what the decision of the court may be.

Mr. R. G. Comeaux, a prominent planter of Iberville, was a witness in the Sharp-Levert drainage suit last Monday.

Hon. V. M. Lefebvre, one of the best known and most popular planters in the parish, visited Port Allen Monday.

The river continues to rise at this point with a rapidity that is anything but pleasant to

WEST BATON ROUGE.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Contrary to wishes and expectations, March terminated with the temperature below the normal, and the first week in April has been cold for the season, and vegetation has been retarded in consequence. Fortunately seasonable precipitation was had in the major portion of the parish, yet in the lower portion the rainfall was limited.

Notwithstanding the change in temperature canes, both plant and stubble, make their appearance, the ratoons in greater abundance than the spring plantings. The rain was a very seasonable one, although not enough to thoroughly saturate the larger clods, yet it was such as to put the stubble rows in a splendid condition, and plant canes can be scraped to advantage. The cold weather will check the growth of the early corn and it will change in color should it continue.

Fortunately conditions are such that field work can be rapidly advanced, and every advantage should be taken of it to fertilize both plant and ratoons as rapidly as possible and middles ploughed out to insure clean fields by the first of May, after which grass will grow apace when showery weather begins, a condition to be looked for at that season.

Every acre of cane destined for the mill should be fertilized as soon as possible, to give the nitrogen time to undergo the necessary chemical change and be converted into nitric acid, in which form it is generally taken up by the plant. Small applications of fertilizers as a rule give very unsatisfactory results, from the fact that the limited amount of nitrogen tends to give a luxuriant leaf development early, and when the stalk elongations should be rapid, the necessary plant food has been largely exhausted, and short joints are found in consequence, and as a final result the tonnage yield per acre is unsatisfactory.

Thus far but little has been done in the way of factory repairs and alterations. Capt. J. J. Shaffer, of Magnolia, is to renew a battery of boilers, and at Southdown, the estate of the late Mr. H. C. Minor, the heating surfaces are to be enlarged.

Judge Callouet is now holding court; but the business to be transacted is limited. Some planters are already taking advantage of the high stage of the river and getting their annual supply of coal, and others are floating and some cutting wood. The time will come when such employs will be reduced to a minimum or entirely dispensed with in high-typed factories.

Wednesday of last week it rained; Thursday, cold, with a sprinkle; Friday cold, with local showers; Saturday and Sunday, continued low temperature for the season; Monday, favorable during the early part of the day, and dashes of rain after night; Tuesday, variable and cool, and Wednesday cloudy and wintry for April.

The official record for the month of March, at Schriever, shows a maximum temperature of 86 on the 27th, the minimum of 35 deg. on the 4th, with a total precipitation of 2.16 inches, with prevailing winds from the south.

The official weather report for the week from Schriever is as follows:

	Temperature.	Sunshine	Rainfall.
March 28.....	80.0	67.0	100
" 29.....	82.0	68.0	75
" 30.....	76.0	60.0	50
" 31.....	65.0	45.0	100
April 1.....	52.0	47.0	50
" 2.....	60.0	42.0	75
" 3.....	73.0	42.0	75
	69.0	52.5	75
			1.29

TERREBONNE.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: The planting community of this and the adjoining parishes have become restless over the extreme wet and disagreeable weather which has prevailed for the past ten days.

It was surmised by those who till the soil, that with the advent of April, a drier and fairer season would come with it to bless their efforts. But it seems that the planters are doomed to disappointment. Though the second and third were moderately fair, but none too dry—in reality not fully dry enough for obtaining the best results at ploughing and planting—time was too valuable to be lost and the farmers went out bright and early ploughing corn and planting cotton, working as it were against the fates to finish before another rain should fall and cause them further delays. However, on the afternoon of the 5th inst., the clouds gathered thick and dark, sending down a heavy April shower, driving men and teams to shelter, bringing on further serious delays.

A valued friend has placed THE PLANTER scribe under obligation for some very interesting facts gleaned from the Home Place plantation and the Meeker sugar factory. In regard to the crops on the Home Place plantation and the vicinity, my intelligent informant says: "The crop prospects are excellent; better than for many years. Plant cane is showing a splendid stand, which is not strange when it is considered that the seed was in exceptionally good condition when planted. This, with favorable weather, has brought about fine results.

This parish (Rapides) is promised something which it has not had for the past three years—that is, a fine stubble crop. And judging from present indications, this parish will grow the largest corn crop ever known in its history.

The Home Place plantation is this year under the immediate supervision of Dr. S. F. Meeker, and the splendid condition of the 500 acres of plant cane and 350 acres of stubble cane on the place is sufficient evidence of Dr. Meeker's ability as a successful planter.

The Meeker factory handled last season 35,200 tons of cane besides considerable syrup from Chetwood factory. The factory this year will be prepared to work not less than 50,000 tons, based on a daily capacity of 1000 tons.

The cane to satisfy the ever increasing appetite of the splendid nine-roller mill will be partly furnished by the Home Place, and in addition to this there has been contracted for, 30,000 tons grown in the neighborhood, and reached by the factory's tramways; and somewhat more than 10,000 tons to be delivered by the Texas & Pacific Railroad.

Mr. F. G. Drouet who, with Dr. Meeker, is acting as executor of the estate of the late J. H. Meeker, has earned for himself an enviable reputation as an energetic and successful business manager. He is ably assisted by head book-keeper Waddil, with Mr. Robert Storm as chief engineer and master mechanic. The word "fail" is not known in the vocabulary of the Home Place.

With regard to the Meeker factory considerable improvements are to be made, preceded by the drying of nearly a million pounds of sugar left over in tanks from last season. Among other improvements contemplated is converting the double into a triple effect and adding an additional vacuum pan, a number of centrifugals, erecting a number of boilers and also a large superheater and new pumps. The tramways will be extended to reach new places and fields of cane, laid with steel rails no lighter than twenty-five pounds to the yard. Progress is the watchword on the Home Place plantation and in the Meeker sugar factory.

The Chetwood factory, belonging to Mr. E. V. Weems, will have an additional eight-foot pan put in this season, and some other minor improvements will be made.

Mr. Robert Storm has, among other pressing duties, this spring designed a remelting and refining syrup plant, for a firm in Shreveport, with a capacity of 600 barrels, said to be the largest in the State. It also includes a cider and vinegar factory.

ERIN.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: There has been but little change in the general condition of the weather since my last week's letter. The cave of winds has again been opened and old Boreas in his unrelenting fury has swept down upon us. The change very unexpectedly came about 12 o'clock last night. A very heavy rain fell here yesterday afternoon about 4 o'clock and afterward the thermometer ran up to 80 deg., which made general surroundings very uncomfortable, but those who retired with

little or no provision for covering last night were very much surprised when they were awakened from their slumbers at 1 o'clock this morning to find the mercury falling at the rate of 10 deg. per hour. At 6 o'clock this morning the thermometer registered 55 deg. and has varied but little during the day. This cool snap will retard the growth of the general crop, but will have a more marked effect on the corn crop than any other. The cool spell we had about ten days ago caused the corn that was then up to turn red, and this second spell coming on before it recovered from the first backset will check the growth entirely. Cane has turned a little yellow, but the growth, which is very brisk, does not seem to be retarded in the least. The prospects for a good cane crop this year are very promising and some of our local mills are already beginning to make improvements in the way of narrow-gauge railroads for handling cane during the grinding season of 1898-99. Mr. Martin Bagley is now constructing a road in the Rice Cove neighborhood, a few miles from his Ramsey refinery, which will greatly assist the cane growers in that section in delivering their present crop. General improvements are being asked for all along the I. & V. R. R. in the way of extension of switches and better derrick facilities.

Our correspondent drove out with Mr. L. Sokoloski to Delcambre, twelve miles east from Abbeville, on the I. & V. road, a few days ago, and Mr. D. Delcambre, who controls about 12,000 tons of cane at that place, said he could not possibly handle the present and increased crop unless he could get greater track room than the Southern Pacific Company had been giving him. He also stated that Pouffette and Lees will need more track room to handle the crop.

On our return we stopped at Erath and Le-Blanc's switch and found the same requirements prevailing at those places. At Erath more hoisting facilities are needed and at Le-Blanc's both track room and hoisting facilities are needed. We don't anticipate any trouble in getting all the track room that is necessary from the railroad company, and with this concession the crop can be easily handled.

Rice farmers are pushing the preparation of their lands for the reception of the seed; some of the more thrifty have seeded a part of their lands, which is already up to a good stand. Levee building and general repair work is being done. The Vermilion Development Company, of Gueydan, La., is renovating their canal by putting in new underdrains and siphons and other necessary repair work. Work is being pushed on the new canal being built by the same company, mention of which has been made in these columns before.

P. C. M.

St. Mary.

Editor Louisiana Planter: The corn and cane crops, in their primary stages, show a splendid stand, with promises of a good yield from an enormously increased acreage. St. Mary will of course hold her own as the banner sugar parish of Louisiana.

The crops in the Cypremort country are

fully up to the standard of former years in quality, with a much larger acreage than was ever planted before. There was never a crop failure in that locality, and as long as present conditions exist there never will be, and if the police jury can be induced to dredge out the waterways of St. Mary, agricultural efforts will be a complete success every year in every locality, because the absence of rain will find a substitute in pumping stations, where water is needed to nourish the growing crops.

The few cool days of last week did not injure the cane to any great extent. Nothing short of an out-and-out freeze could do the cane harm, and it is too late in the season to think of that.

To the regret of his many friends in Franklin, Mr. John J. Pringle will not return here after this season. He has sold his plantations in this State and will leave here in a few days. Mr. Pringle has been coming here each winter for about thirty years to spend the season with us, but he will return no more. His large number of friends in Franklin wish him many more years of useful life and long-continued prosperity wherever he may go.

At the sheriff's sale of the Pecot plantation last Saturday, the property was purchased by Capt. John N. Pharr for \$82,000. The property was made up of various tracts of land and embraces a large area for the cultivation of sugar cane. Captain Pharr will retain the services of that excellent manager, Mr. J. W. Foote, to look after his interests in that section of the parish. The cane produced there will be transported to the Glenwild refinery.

A very important decision, under the bounty law, was handed down by the United States Court the other day, in the case of Walter J. Suthon vs. The United States. Mr. Suthon was given judgment for \$18,000. His many friends here, and this means everybody in St. Mary, will be glad to hear of his good fortune.—*Franklin News, March 31.*

Sugar in London.

There are some slight symptoms of recovery in values, but the demand from the trade continues poor; in fact, much below the usual average at this advanced period of the sugar season. The statistical position remains stationary, but the latest reports respecting the sowings of the new beet crop do not hold out any suggestions of an increase of acreage, so that there is little or no fear of any fall in values. The price of beet seems firmly established at about 9s. per cwt., while white continental sugars stand at the irrelative value both for ready and forward delivery, so that no alteration is likely to occur in these descriptions. Cane sugar, on the other hand, is relatively dear, owing to the scarcity of some kinds, but for this very reason it is unlikely that any fall can occur, as, owing to a partial failure of the crop in parts of India, and a demand for cane sugar for America from all parts of the world, the supply is not equal to the inquiry. As regards grocery West Indian sorts a much better price is obtainable in America than here, and the stock of these kinds in England has fallen to a very low level, unfortunately not in quantity but qual-

ity, and it seriously behooves the Demerara planters, more particularly, to bear in mind that the public taste for this sugar is being rapidly diverted to the far more attractive looking yellow crystals made in London. With these sugars met with generally, and pushed for sale at the moderate retail price of 1¼d. and 1½d. per pound, it is ridiculous to suppose that the public will retain a preference for sugar which, beyond being cane, has nothing to recommend it in appearance or in saccharine strength.

At times it may be the result of the juice working badly, but it is to be feared more often than not that the imperfect crystallization of Demerara is caused by want of care and an unduly hurried process of manufacture. The present value of crystallized West Indian sugar, which is unduly high (not from its superior excellence, but purely from short supply), is now at least 1s. per cwt. above the price of fine German granulated, and fully 6d. per cwt. above the price of refiners' yellow crystals. Without entering into the question of relative value, it will be sufficient to point out that it is impossible for this sugar, at the present time, to be retailed throughout the country at anything like the price of granulated. The latter, unfortunately for cane growers, is ever increasing in demand, and unless some radical alteration takes place in supplying this market with sufficient West Indian crystallized of a sort to suit instead of offending public taste, the foreign sugar must eventually supplant it altogether. The American demand may be a very useful second string for the planters, but they would find that, if such a catastrophe took place, once the demand for yellow crystallized is lost, it would be almost impossible to get it back again, and while the English taste for this sugar has lasted consistently for years, the American requirements are of a comparatively new and uncertain character. There were no imports of crystallized raws to London for the week ending 24th inst., the total for this year remaining 5805 tons, against 8065 tons in 1897.—*Produce Markets Review, March 26.*

Gen. W. J. Behan, of the Alhambra plantation, in the parish of Iberville, was a guest of the St. Charles Hotel on Wednesday.

Mr. Frank T. Nicholls, of Ridgefield plantation in Assumption parish, was in New Orleans on a visit a few days ago.

Mr. J. N. Pharr, son of that highly esteemed citizen, Capt. J. N. Pharr, of Glenwild, was in the city on a visit a few days ago, and stopped at the St. Charles Hotel.

Gov. H. C. Warmoth, of the Lower Coast, was at the St. Charles Hotel on Tuesday. The Governor was scheduled, we believe, to show the members of the Hotel Men's Association what a Louisiana sugar plantation was like, and none could do it better.

Mr. F. L. Maxwell, of Mound, La., was a guest of the Grunewald during the past week. Mr. C. H. Callery, one of the leading sugar planters of the parish of St. James, was in the city on a visit a few days ago and stopped at the Cosmopolitan. Mr. Callery was accompanied by his wife.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, March 19, 1898.

Editor Louisiana Planter: The question of the weather is gaining more and more in actuality. The time for field work, nay even for sowing, has approached, but so far very little could be done in that line. The week under review opened under quite favorable auspices. The weather was dry and the temperature rising, so that in this vicinity spring seemed definitely arrived. But the hopes founded on these appearances were rudely set at naught, for soon the sky was lowering, the aerial warmth sank again to a very low point, and the worst of it was that rain set in again, and the pouring down of it continues at present writing. On the other hand, the temperature changed anew, so that vegetation of all kinds is benefited in a measure, only the commencement of agricultural operations is again postponed, the soil almost everywhere being soaked to a great depth. Not quite so bad it seems have been the meteorological conditions in the other European beet countries. In Austria they had predominantly dry and warm weather, which permitted them to do some field work; in France the late snow has been rapidly thawed off and an early commencement of field work is looked for, while Belgium and Holland had changeable but not exactly bad weather. Russia reports for the first days of the week a continuance of hard frost, but toward the close a change in the opposite direction has taken place. As to the extent of beet sowings the situation has not changed in a notable way, and the opinion that there will be practically no variation as compared with last year is still prevailing in commercial as well as in industrial circles.

In February the last beets of the current campaign in Germany were worked, and the quantity turned into sugar comes very near the estimate I wrote you some months ago, the figures being 13,698,280 tons, whilst my estimate was given roundly at 13,700,000 tons. The yield so far amounts to 12.89 per cent., and is superior by 0.16 per cent. to that of last year. With regard to yield, our estimate surpassed the real results of last year only by 0.10 per cent., but nevertheless it appears quite certain that, inclusive of about 95,000 tons molasses sugar, the estimate of 1,845,000 tons will prove as correct as that of the beet crop.

The situation with regard to the bounty movement has become, especially as far as Germany is concerned, of late a little more defined. A representative of the imperial government has declared in a commission of the Reichstag that only the entire abolition of all direct and indirect bounties is the aim aspired at by the allied German governments, and the one-sided abolition of only the German subsidies would not come into question. In the English Parliament the sum of £— has been named as proposed to be given in aid to the suffering West India Islands. It remains to be seen if the home government, in the case that the bounty conference should not be brought

about, or if it should prove abortive, like its eight predecessors, would grant a bounty to the sugar makers of the colonies. For the present, the English and the American governments are at work to settle the question as to reciprocity treaties.

From an official report on the development of the French sugar industry in 1896-97 we extract the following: There were in the campaign 1896-97 358 factories in activity, two more than in the preceding campaign. Of this number there were 314 ordinary factories, and forty-four central factories which are connected with 102 juice-extracting houses: one factory is combined with a distillery. The number of days worked during the campaign amounted to 27,505 days, so that in the average each factory has worked 76.8 days, as against 61.8 days in 1895-96. The total number of workmen (women and children included) was 49,807, against 48,794, or 1013 more than in the last campaign. The area planted with beets amounted in 1896-97 to 246,204 hectares, whilst in the preceding year 204,718 hectares were sown. The crop resulting is given at 6,765,000 tons, against 5,411,484 tons in 1895-96. The larger crop, however, is not only due to the larger area, but also to the better yield per hectare, there having been harvested 27.5 tons to the hectare in the campaign under review, whilst in 1895-96 the crop to the hectare was only 26.4 tons. The average price for the beets paid by the factories is calculated at 24.30 francs per ton, as against 26.43 francs in 1895-96; and the aggregate amount the French agriculturist obtained for the beets furnished to the sugar factories was in 1896-97 164,389,500 francs, equal \$32,877,900, against 143,025,525 francs, equal \$28,605,100. Of the beets worked in the 325 factories, placed under the system of taxation called the "abonnement," 620,274 tons of sugar (refined value) have been obtained, which means an effective yield of 9.09 per cent. In the other thirty-seven factories, which preferred the fixed bounty of 7½ per cent., 47,829 tons of sugar, equal to 8.75 per cent., have been produced. The total yield in all factories is in the average of 9.882 per cent., as against 10.970 per cent. in the preceding year. The so-called excedants—that is, that part of the production which enjoyed the advantage of a reduced taxation—was 21.4 per cent., as against 26.88 per cent. in 1895-96, which shows that the quality of the beets was greatly inferior to that of last year's crop. The bounty received accordingly was 6.48 francs for 100 kilogrammes refined value, whilst in 1895-96 the amount of 8.06 francs was pocketed by the French manufacturer and in the following year also by the colonial sugar makers. The working capacity of the French sugar factories has been increased in the campaign under review from 54,941 horse-power, to 59,783 horse-power in 1896-97.

In Germany the illumination of sugar factories by acetylene is now discussed, and in one factory it has been already successfully introduced. The light itself is unimpeachable and the danger of explosion, which for a certain time has prevented it from coming into more general use, being now avoided, there seems to be no serious objection to its employment in

the place of coal gas. As a drawback, however, is mentioned the bad smell of the stuff, which is said to leak out at all possible and impossible fissures, and also the price is a little too high, at least for the present, but as soon as sufficient quantities of carbide can be produced the cost will be much reduced. There was a few days ago in this city an exhibition of acetylene gas-burning apparatuses, etc., which has proved a perfect success, and which no doubt will greatly contribute to the extension of this "light of the future."

Of the markets I can only say that in the week under review the dullness already reported has rather increased, for which, however, no special reasons can be detected, except perhaps the somewhat unsatisfactory export figures of Germany for February. Holders are getting discouraged, and by their offerings and under this pressure the prices are declining, so that actual goods are in Magdeburg again 10 pfennigs cheaper than last week, the quotations being 9.90 to 10.10 marks, and at Hamburg, 9.00 marks, f. o. b., for March delivery. Refined were also quiet and 12½ to 25 pfennigs lower.

ROBERT HENNIG.

British Honduras.

TOLEDO, B. H., March 28, 1898.

Editor Louisiana Planter: We have at last met with a nice spell of weather, and sugar planters are making good use of it to get their crops off. Good sugar is the order of the day; every planter not only seems to be trying but succeeding in making a better quality of sugar this crop than usual. Dr. Pearce, on his Eldridge plantation, is making a damp white sugar which his sugar boiler is confident will test 93 deg.; he also gets a splendid yield of seconds. He is also working over a lot of old muscovado sugar he had left over from last crop by simply putting a few buckets full of it in each clarifier of juice and allowing it to go through the same process which the juice does. He also says he will probably melt over his seconds so as to make nothing but white sugar. In this way, the doctor will not compete with other planters, who are making common brown sugar, but will supply the market with a grade of sugar which has always been imported to the colony, and he will really be an advantage to his neighboring planters. Provided he holds up the price of the sugar he practically has a monopoly.

Perhaps the next innovation of importance will be the introduction of green bagasse burners. Firewood is becoming an expensive article, not only on account of its scarcity, but laborers cheat so in cutting and piling it. Also it is difficult to get at it with carts to haul it. It is also expensive handling bagasse, and requires much more shed room. The trouble so far about introducing this improvement is that the mills in use in the colony are too small and do not get the proper extraction. The consumption of sugar in the colony is so limited that one plantation large enough to go in for modern improvements would furnish enough sugar to supply the demand, unless the article could be produced here as cheaply as in the United States, which it seems has

not been done so far. Planters here are a little uneasy about the war scare in the United States for fear it might cut short their supply of provisions, which are imported almost exclusively from the United States. What would cut off the supply of provisions would also cut off the supply of sugar to the Spanish coast and increase the demand from here.

TROPIC.

Two New Reservoirs on the Nile.

The Khedive in Council has just approved a contract concluded with Messrs. John Aird & Co. for the construction of two great dams across the Nile for storing and distributing the water of the river, one at Assuan, the other at Assiut. Both are to be completed in five years, and the contractors accept payment of £160,000 sterling per annum for thirty years, beginning with the completion of the dams.

The great dam at Assuan will be pierced with sufficient openings to permit of the passage of the Nile in flood. In the autumn months the sluice gates will gradually be closed until the reservoir is full, that is, about January or February. From April to the end of August, when the demand for water for the sugar, rice and cotton crops is at the highest, the gates will be gradually opened, and the supply of the river will be supplemented by the supply of water stored in the reservoir. This dam will be over a mile in length and the amount of water to be stored is calculated at 1,065,000,000 cubic metres. The Assiut dam is intended for raising the river level during the summer, thus increasing the distributing power of the canals in Middle Egypt and the Fayum.

A Cairo correspondent of the *London Times* says: "It is difficult to estimate the immense benefits which will accrue from this scheme. The lands which are now without summer irrigation will double in value, and others which are almost valueless from the want of any irrigation will produce large returns to the government directly or indirectly. A further most important advantage is that Egypt will possess water storage to provide against seasons of low Nile floods—a matter of vital necessity, as the cultivated area is so greatly extended that even during seasons of favorable flood the present water supply is insufficient for the demands of the cultivators."—*Manufacturer*.

Col. W. H. Price, of Lafourche parish, was at the St. Charles Hotel on Tuesday last.

Col. Richard McCall, of McManor plantation in Ascension parish, was a visitor to the city during the past week.

Mr. W. W. Ventress, a prominent sugar planter of Iberville parish, was at the Hotel Royal a few days ago. Mr. Ventress was accompanied by his wife and son.

Mr. Edw. Wolfbauer, of late chemist at the great beet sugar works in Chino, Cal., was employed as chemist during the past campaign at Mr. Leon Godchaux' fine Elm Hall place in Assumption parish. Mr. Wolfbauer has thus had an excellent opportunity to contrast two splendid beet and cane sugar factories.

BEET SUGAR.

Chino, California.

The rain of last Friday night amounted to .40 of an inch and was of incalculable benefit to hay, grain and grass. The dry wind of Tuesday, however, again drove the moisture out of the surface of the soil and in some places damaged young beets and grain. As the days pass now, prospect for any considerable rain to come grows less. It looks much as though we were facing one of our rare dry years, and will have to make the best of it. On the Chino ranch, however, we are now sure of hay for stock and some grain. The hay will be mostly short but fine. As for beets, the conditions are not much changed from those of a week ago, except that the prospect of a soaking rain is less. Beets are being planted steadily. On some land a good crop is reasonably sure. On most of the land a light crop is promised, and on some land (probably a small acreage) seed had better not be planted. On most of the land thorough tillage and pulverization is the main need to hold and preserve all the moisture present.—*Champion*, April 1.

Watsonville, California.

First beet thinning next week.

Looks like a dry year for beets in southern California.

Japanese and Chinese are offering to contract beets, that is the field work on them, at 85 to 95 cents per ton of beets delivered. Many contracts have been let on choice lands at 90 cents.

The site of the old beet sugar mill at Soquel is planted to beets this year for the Watsonville factory. The old Soquel house has been torn down, and what was left of its machinery is stored in an adjacent barn. The first sugar beets raised in the Pajaro valley were grown for this mill, which failed some eighteen years ago after a brief existence of two years.

Last week's rain was welcome. The grain crops had commenced to wilt under the dry north wind of the early part of the week, but Friday's precipitation of nearly an inch soon restored them and also served to replenish moisture in the land prepared for beets. Beet sowing, which was interrupted for a few days by the storm, is now resumed. With a few spring showers and our usual summer fogs we shall have a banner beet crop in this valley.—*Pajaronian*, March 31.

Eddy, New Mexico.

The *Argus*, in its last week's issue, stated that the sugar company had received 38,000 pounds of seed, when it should have said 68,000. It put the quantity of Klein Wanzlebener at 5700 pounds, when it should have read 57,000 pounds. The original notice was correct, but the intelligent compositor concluded that there were too many cyphers, and in putting it in type dropped one, hence the confusion.

Sugar Beet Seed.

Between thirty-five and forty cars of sugar-beet seed have been and will be received at the

office of surveyor of customs this winter—four of them being already in sight. This aggregates 1,600,000 pounds, of which 300,000 are bound for Nebraska, and the remainder for California, Utah, Oregon and New Mexico. This entire amount is imported by Myer & Rampke, of Omaha, 90 per cent. from Germany and 10 per cent. from France and Russia, so through the Omaha custom house passes this entire amount, or 75 per cent. of the sugar-beet seed used in the United States. The seed retails to the farmers at 15 cents per pound, and practically all that is used is imported.—*Omaha World-Herald*.

More of the Nebraska Beet Contract Controversy.

GRAND ISLAND, Neb., April 4, 1898.

Editor Louisiana Planter: The controversy between the beet growers of this vicinity and the Oxnards over the 1898 contract has, in a measure, been compromised. As was stated in these columns some weeks ago, the bone of contention was the clause in the new contract providing for a reduction of 50 cents per ton for beets in case of the annexation of Hawaii. The farmers protested against this feature of the contract, and at a meeting attended by some of the principal growers of this vicinity it was unanimously decided not to raise any beets the coming season unless the factory should agree to pay a flat price of \$4 per ton for all beets, regardless of purity and sugar content. The result of this decision was felt by the factory authorities, and the procuring of contracts was a difficulty not experienced since the two first years of the existence of the factory. While the contracts were all closed long ere this last year, but little progress had been made up to two weeks ago.

A number of the more conservative farmers had hoped and expected that the objectionable clause would be taken from the contract, realizing that without this the contract would be much more favorable than those of previous years. The long-looked for event happened, and in a communication from Mr. Oxnard he withdrew the Hawaiian clause. In support of his action, Mr. Oxnard stated that careful investigation led them to believe that the annexation of the Hawaiian Islands could not be accomplished at this session of Congress. In case the disputed question comes up before Congress again next year, a clause will be inserted in the contract to the effect that a reduction of forty cents a ton will be made for every quarter-cent that sugar declines, taking as an average the price for the past two years.

If, as many claim, the annexation of the islands would not affect the price of sugar, there could be no reasonable objection to the clause. If, however, the price is affected, the factory people will have taken all necessary precautions. Mr. Oxnard does not relish the opposition met with this year, and says, were they to accede to the demands of the growers for a flat price for all beets, it would mean the closing of both Nebraska factories within a very short time. Mr. Oxnard thinks that the principle of a little knowledge being a dangerous thing accounts for the fact that only

two factories have been established in Nebraska during the past seven years. He deplors the opposition of the press and predicts that if their present policy is continued there will be only two factories in this State for many years to come. He expresses the desire that it were possible for the factory critics to come together and start a beet sugar factory according to their plans, and facetiously adds that he would not care to subscribe to the stock of such an institution.

As a result of Mr. Oxnard's concession a meeting of the Beet Growers' Association was held in order to again obtain the sentiment of the members. The meeting was attended by about a third of the members, and when the question was put for those who would still refuse to raise beets under any but the flat price contract should arise, about two-thirds of those present arose. It was brought out during the discussion that at least 50 per cent. of the members of the association had already made contracts and quite a number more intended to do so as soon as possible. As the matter now stands there seems to be no question but that the factory will be in operation this year, although it is doubtful if the campaign will be as long as that of last year.

C. V. NUSZ.

Hawaii and Free Sugars.

WESTPORT POINT, Mass., }
March 29, 1898.

Editor *Louisiana Planter*: In your issue of the 26th inst., wherein my article on Hawaii and Her Sugars appears, I notice that you "are sorry to see that I should now have joined the Hawaii annexationists." In this you are very much in error. I do not believe in annexing those islands, neither do I believe in annexing any territory not on this continent. I do not consider that we have any use for Hawaii or Cuba, and I am quite satisfied that the time is not far distant when this country will find enough to do to take care of this Union without further additions of territory. Whatever advantages may be gained by gobbling outside territory would be invariably offset by disadvantages too numerous to mention, and such grasplings may better be left to other nations in my opinion.

The intention of my remarks in the paper referred to was not to advocate annexation, but to show that if the same energy and statements that have recently been employed at the National Capital by beet sugar producers had been employed for the abrogation of the fraudulent treaty with Hawaii it would have been more to the point, and inasmuch as the question of annexation is shelved for the present at least, the treaty should be attacked with vigor; and again, that while producers have been fighting against annexation, employing reasons that could well apply against the treaty, I have not noticed a word or an argument of import from them against the treaty, and accepting the natural conclusion that annexation can not in any way make the matter of free sugars worse than it is under the treaty, producers have no more to fear from annexation than they have from a continuance of the treaty, which is quite as likely

to continue twenty-three years more as it is to be abrogated, unless our sugar producers and all friends of the home industry join hands and determinately fight for its ending. When this is done you can consistently say that we are working not only to develop our sugar industry, but to defend it against foreign encroachment, as I certainly have endeavored to do for twenty years.

Your point is that if not annexed "we could get rid of her" (Hawaii). That is correct, but if our sugar producers are to continue quietly to let the Hawaiian treaty severely alone, and thus permit the fraudulent incubus to drag its length along to the detriment of our producers and our revenue, what worse is there to fear from annexation? I repeat that I am opposed to the annexation of the Hawaiian Islands not only in its relation to our affairs, but as being of not the slightest importance to this country for any good purpose, and I am equally opposed to a continuance of the existing treaty, which is not only detrimental to our advancement as producers of sugar, but a direct robbery of revenue that should no longer be tolerated by the people of these United States.

HENRY A. BROWN.

Sugar as a Food.

In the *Journal des Fabricants de Sucre* of the 9th March is an interesting article on this subject taken from the *Temps* of the 15th February, of which we append a somewhat abridged translation:

Among the physiological problems on which a great deal of light has been thrown by scientific biology is the discovery of sugar in the whole of the animal series, and of the important part which this substance plays in the nutrition and organic functions of man and of animals. Claude Bernard, through the discovery of the glycogenic function of the liver, opened up a new era to physiology, and, in consequence, made the consumption of sugar a social question of the first rank, and thus worthy of the attention of the Legislature. If the bulk of consumers, instead of considering sugar as they generally do, as an agreeable condiment, and as the base of certain drinks, had an exact idea of its high alimentary value, the necessary fiscal reforms, in connection with sugar in France, would be singularly facilitated by the enormously increased consumption which would follow. Sugar is not a condiment. It is as indispensable a food as meat or bread; and, indeed, its physical action is, perhaps, more closely connected with the manifestations of life than is the case with any other alimentary substance. Toward the middle of the present century the chief function of the liver was entirely unknown, but it was discovered and demonstrated by Claude Bernard between 1853 and 1855. The liver is the apparatus where the most various foods, even those entirely wanting in any saccharine matter, make up, with the aid of the elements of the blood which traverse it, a substance identical with vegetable starch, which is transformed almost instantly, in the organ itself, under the action of a special ferment, into glucose sugar. Claude Bernard gave this variety of starch the name

of glycogen, which means a sugar-breeding substance. The two principal varieties of sugar are cane sugar, or saccharose, and grape sugar, or glucose.

The blood which issues from an animal's liver nourished entirely on meat, or on fat, always contains sugar. It is the same in the case of an animal which has been without food for some time. The glycogenic matter and the sugar which results from its transformation are thus produced in the liver without the aid of saccharine matter introduced by food. The blood which penetrates the liver contains no sugar; that which issues from it always contains notable quantities of it. From this there are two conclusions, which the latest researches have fully confirmed: (1) Sugar is formed in the liver, and it enters from it into the circulatory system. (2) It is destroyed and neutralized by the organism in a very short time, because the blood contains none when it flows back to the liver, after having passed through the heart and further into all the organs. We shall learn directly what becomes of this sugar.

The glycogenic function is universal. Claude Bernard has found it throughout the whole of the animal creation, even in the unborn embryo, and in the eggs of birds, the larvae of insects, etc. These all contain glycogenic matter, of which the transformation into sugar serves for the nourishment of the embryo, or of the being about to be born from it. In man and the higher animals it is at the moment of digestion that the glycogenic function attains its full power. But it is important to note that it is independent of the nature of foods. From the point of view of natural philosophy this discovery is of great importance, for it completely destroys the supposed antagonism between animals and vegetables. The deep line which had been established between the two kingdoms as regards nutrition has disappeared, and life is found to be one. Plants, it used to be said, alone have the faculty of creating from materials drawn from the air, from the water and from the soil principles called *immediates*, such as starch, fat or nitrogenous products. According to this theory animals were regarded exclusively as consumers, using up substances manufactured by vegetables, because it was impossible for them to produce them themselves. It was then thought that fat, albumen, etc., in the bodies of animals were produced by the fixation in the tissues of these matters which had been elaborated by plants. It was not believed that animals had the power of producing them.

The discovery of the glycerine function of the liver, corroborated by the numerous facts established by Claude Bernard, has completely destroyed this old hypothesis of the direct nutrition of animals by materials elaborated by plants. This hypothesis has given place to the doctrine, now uncontested, of indirect nutrition. By this is meant that the animal manufactures, with the aid of materials drawn from the vegetable kingdom, starch, sugar, fat, and the flesh which forms the tissues. In the same way, the saccharine, nitrogenous, and fatty principles of milk, which do not pre-exist in the body, are the product of the

constant renovation of the mammal gland in the female.

Thus is explained, and fully justified, the principle of substitution, on which repose numerous combinations of commodities which build up equivalent food rations for man or for animals. The essential qualification, which substances destined for food have to fulfil, is, that they must be ready to be transformed, in the digestive act, into that special liquid among animals which is known as blood, and which is the true nutritive source from which the organic tissues draw the elements of their maintenance, or of their reparation. Nothing, however, except the almost absolute invariability of the composition of blood, whatever be the nature of the foods, could prove the truth of Claude Bernard's doctrine. The experimental study of the conditions of assimilation of sugar by animals led Claude Bernard to give his physiological definition of the character of food, which he formulated in these terms: "The essential character of an alimentary or food substance is that it should disappear in the blood when injected, after being dissolved in gastric juice." The experiment on which the definition was founded is the following: If even a small quantity of dissolved cane sugar is injected into the blood, or under the skin of an animal, the sugar is eliminated without having helped in nutrition. It is found intact in the urine, with all its chemical characters. If this experiment is repeated with a saccharine solution first put into contact with gastric juice, the cane sugar is transformed into glucose, and disappears entirely in the blood, so that no trace of it is found in the urine. To serve for nutrition, cane sugar ought thus to be modified by the intestinal liquids, which render it in all ways similar to the sugar manufactured in the liver. It is on this condition only that it becomes a food. This characteristic of alimentary substances, discovered by Claude Bernard, is general, and is applicable to albumen, fat, etc.

It is known that food materials are not totally assimilated in digestion, and a portion of the nitrogenous, feculent, or fatty substances, escape the transformation necessary to enable them to penetrate into the circulatory system, which is an essential condition of their neutralization by the organism. The amount not transformed into fat from nitrogenous matters, etc., is expelled by the intestines. It is this fact which establishes, in its most striking form, the superiority of sugar over the other nutritive principles, which, as a whole constitute foods. Differing from fat, from albuminoid matter and vegetable fibre, sugar is internally digested—there are not the slightest traces found of it in residue of the food. Under the influence of intestinal juices, cane sugar, which can not be assimilated in that form, is transformed into grape sugar, on which devolves in the organism the same part as is played by the sugar of the liver—an important part which I have now to detail.

Sugar, like all the organic compounds which contain carbon, gives off a considerable quantity of heat in burning (or what is the same thing in oxidation), and is converted into carbonic acid and water. This heat may, in its turn,

be transformed into an equivalent quantity of energy or work. Sugar is thus at once a most important source of animal heat, the most important perhaps of all, and it is at the same time an indispensable element for the production of muscular work. The classical experiments of Messrs. Chauveau and Kaufmann throw much light on the subject. In 1856 M. Chauveau proved the existence of liver sugar in the whole circulatory system, even to the smallest capillary vessels of the general circulation. Elaborated by the liver, the saccharine matter is thus transported to every point of the body, and it is not only in the heart, as has been admitted to begin with, but also in the capillary vessels, that the phenomena of combustion take place, which are the source of animal heat.

Numerous additions of sugar to the blood of various organs led M. Chauveau to affirm the dissemination of glucose and its destruction at all points of the organism, and to prove a close relation between the absorption of sugar in the capillaries, during the transformation of arterial into venous blood, and the activity of combustion in the different organs. The glucose absorbed in the capillaries is finally transformed into water and carbonic acid, but it is in the tissue of the muscles that this transformation takes place with the greatest intensity. Organic combustion, the source of energy and of every activity in the animal economy, had already been the object of various researches, when M. Chauveau, by a careful comparison of the variations of blood in the muscle in repose and in the muscle at work, showed, by the aid of experiments (as delicate as they were conclusive), the all-important part played by saccharine matter in muscular activity. In collaboration with M. Kaufmann, he showed the exchanges which are produced in the blood which traverses a muscle in repose and in the same muscle at work; in a gland at rest and in a gland in action. These beautiful experiments were conducted upon the horse. The muscle of mastication (*masseter*) and the gland which secretes saliva (*parotid*) were used for this research. The general law summing up the influence which the work done in an organ exerts upon organic combustion and in the consumption of glucose sugar, which corresponds to it, was thus formulated by M. Chauveau: "During the work done in an organ in a state of physiological activity, the quantity of sugar which disappears in the capillary system becomes larger than in repose. It is proportioned to the superactivity of the organs where combustion is little added to, such as in the glands, and it is much greater in the organs like muscles, where the activity of combustion is great."

The blood which traverses the *masseter* muscle of a horse at rest (in the absence of mastication) gives off, in a given time, a quantity of carbonic acid equal to 2.04; in a state of activity in a muscle (chewing oats), and in the same time, the quantity produced rose to 65.59. In other words, the activity of combustion in a working muscle is about three and a half times greater than when it is at rest. In ascertaining the quantity of glucose which disappears in the blood which traverses the

muscle at rest and at work, Messrs. Chauveau and Kaufmann showed a combustion of glucose of 0.121 gr. in the first case, and a disappearance of sugar equal to 0.408 gr. during work. The muscle thus borrows from the blood which traverses it three and a half times as much sugar in activity as in repose. There is thus a very close relation between the blood losses in sugar and in the increase of combustion during the physiological working of muscles. The glycogenic function of the liver is thus the primordial source of animal heat and of muscular activity. On the other hand, numerous experiments, made of domestic animals, have shown that the sugar in foods helps in the same manner as the sugar of the liver, to promote organic combustion and to produce work. I would here only mention a curious fact mentioned in the Reichstag, in the sitting of 16th December last, by Dr. Paasche, on the occasion of the discussion of the budget of the German Empire. This deputy asked that a more important place should be given in the future to sugar in feeding soldiers, and in support he recited a recent observation of Staff-Surgeon Dr. Schumburg. Exceptional fatigue was imposed on the men of a regiment, on which each of them was given a supplementary ration of thirty grammes of sugar, which gave the soldiers enough energy to continue the manoeuvres for some hours longer. Observed facts, therefore, as well as experiments, inconceivably show the high food value of sugar. It may be concluded that it is of the greatest importance to encourage, by all means in our power, the consumption of sugar by man, and that of molasses by animals.—*Produce Markets Review*.

Demerara Agriculture in 1829.

[Written about 1829, by WILLIAM HILLHOUSE, for our unpublished handbook of the Colony of British Guiana.]

PART I.

Agriculture.—Such has been the bounty of nature to these regions that the science of agriculture, in comparison with its European improvement, is still in its infancy. Little more is required than to plant in the rainy and to reap in the dry season, and the earth gives her increase without manure, the plow or the harrow. It is true that the whole labor of the field is performed by manual exertion, but when it is understood that this labor, in the only instances where machinery could be substituted, is only required every ten to fifteen years, no machine would pay its expenses. A sugar estate once drained and properly planted for twelve or fifteen years requires absolutely no other field labor than that of weeding and clearing the drains, reaping and replanting the sugar.

It is the general custom when lands have been so long in cultivation as no longer to answer the expectations of the planter to abandon them altogether, and leave them fallow for several years, in the meantime clearing away virgin forest lands, the produce of which is so great and immediate as to pay the expense in one year, and does away entirely with the necessity of manuring the old lands. It is plain this system can not last forever, as

notwithstanding the great abundance of land in most parts of the colony, the diffused and extended nature of the cultivation will in time cause as great a diversion of labor as the practice of manuring itself would. Plows have been from time to time imported and have been found to answer in turning uplands that have been long cultivated, but after the first essay, no further occasion has been found for their use, till they were rotten. At this moment a cart is an extraordinary machine in the country, and a horse or mule with a pack-saddle is nowhere to be seen. Indeed, so much has the colony availed itself of its advantages for navigation, that every estate, by its navigable canal and the use of boats, renders unnecessary the ordinary implement of land carriage. To explain these circumstances it will be necessary to add that all estates, except those on the rivers, begin at the sea coast and run between parallel lines to unlimited distances in the interior.

The coast lands, also, for some miles inland, are from one extremity to the other of the colony uniformly level, and when this level terminates, the soil is found unfit for cultivation; navigation meets with no impediment, and the planter has always a resource in the forest behind him. The following remarks may not be free from error, from the want of more general discussion; they are principally compiled from personal observations.

A sugar estate of 300 negroes, with all the works and proper extent of cultivation, will be worth £80,000 at the present valuation. It will produce from 500 to 600 hogsheads, with proper management. This crop, worth from £7500 to £9000, is, including interest, eight or ten years' purchase. But it is seldom an estate can be bought with all these preliminary advantages, so that twelve or fifteen years may not be an unreasonable time allowed to clear the capital.

A coffee estate of the same strength, worth about £45,000, may make 100,000 pounds of coffee annually, or about £5000, but the crop being very uncertain coffee estates are generally longer in clearing themselves than sugar properties.

Cotton, in the earlier period of the colony, when the front salt lands were new and the plant gave a great comparative return, was for the first ten years a very lucrative cultivation, requiring little expense beyond the first purchase of the negroes, and those bought at one-half the present price. In the present day, however, with the value of the article so much reduced, and those parts of the soil most favorable for its growth exhausted, the purchaser of a cotton estate involves himself in certain ruin. However desirable the abolition of the slave trade might have been on the score of humanity, it entails upon the mother country the certainty of losing the command of one of the principal staples of her manufacture. And for the future she will be dependent on America or other States for a supply of that article which it would ruin her own colonists to cultivate; the British government can never keep a cotton colony in its possession till it reduces the price of negroes to something less than £100 a head, as under present cir-

cumstances it would otherwise never pay its expenses.

There is no country within the tropics so favorable for grazing as this. The immense savannahs and waste or deserted lands preserve a constant supply of the finest herbage for cattle, particularly oxen. The beef and mutton, though not so fat, are equal in flavor to the best European. And the rapidity with which cattle increase when the least attention is paid to them proves the superior congeniality of food and climate. There is no doubt that by proper establishments the whole of the British navy on the West Indian station might be supplied with a better and cheaper description of dried or smoked beef than from any other part of the continent or islands. The port of Demerara ought indeed to be the grand depot for provisions and fuel for the navy in these seas. It moreover enumerates more than fifty different kinds of hard wood of the most superior quality, of which several, for size and durability, are the best calculated for the construction and repairs of ships of war, as a proof of which the strength and durability of the different species of colony craft may serve as a specimen.

It is extraordinary that with all these advantages of local circumstances the mother country has never yet suspected that she was in possession of a colony that under every circumstance would enable her to keep her navy without intermission on a West India station. The French and Dutch have been long aware of this, but the former have kept the knowledge to themselves from (omission in MS.) and the latter, when possessors, from that cautious system that prevented them from showing all its advantages lest they might tempt the aggression of stronger powers. Accordingly, from the first we have little more information than what relates to botany, birds and butterflies, and from the latter nothing but accounts of agues, fevers and bush negroes. The English themselves have been so long exclusively occupied with their mercantile concerns that after a possession of nearly twenty years, the Legislature at home, or any of them, still call it with Mr. Pott the Island of Demerary, and the best informed on other subjects are still in the dark on the subject of the richest, the most extensive and most advantageously situated of all the British West India colonies, the key of the continent of South America, and the centre from which all communication with the Spanish and Portuguese kingdoms of the South must hereafter emanate.

PROPRIETORS OF ESTATES.

Before entering upon this subject it will be necessary to premise that it will be impossible to convey a proper idea of the real and true meaning of the term proprietor, without giving some offence to the feelings of those who, on the side of the planters, have not considered the nature of their tenure, or of the merchants who do not wish the nature of that tenure to be generally understood. Such offence, however, must vanish before the conviction that a simple view of the facts must convey.

A colonist who has scraped together a capital of £5000 does not conceive that the

interest of that sum will enable him to live in the style suited to his ideas of a West India fortune. He looks forward to a lapse of eight or ten years more, when he could retire with a sum of £40,000 or £50,000, and upon that could manage to enjoy the privileges of European gentility. Accordingly he negotiates with a merchant who advances the balance between the sum he has in hand and the instalments due on an estate of £50,000 value. For this advance the merchant receives interest at 6 per cent. and the consignments of all the produce of the estate till the whole debt is paid; perhaps for a year or two after, as terms may run. At any intermediate time the merchant claims the power of foreclosing the mortgage which he has upon the estate and the planter binds himself in willing condemnation of the law proceedings for that purpose.

The £5000 of the planter being sunk in the estate, the merchant the first year possesses security for at least that sum more than the first value, and every succeeding year increases the security by the receipts of the crops and diminution of the debt, whilst in all the subsequent decreasing terms of the debt his great source of emolument, the consignments, has no diminution. It is apparent, therefore, from this statement, that a planter buying an estate with a mortgage to a merchant merely gives that merchant a premium down, to appoint him his bailiff or agent on a property that may in a given number of years restore to the merchant his own capital, trebled by interest and consignments. At the expiration of that time, the estate becoming free, the proprietor, now also rich, returns to Europe to enjoy his boarding house at Cheltenham, or his wheel chair at Bath. And let those who envy the possessors of West India fortunes point out in this how the proprietor of £50,000 is superior to him of £5000—since the anxiety, the care and the contumely of the rich proprietor during the period of his occupancy has merely entailed upon him the diseases of age and taken away the power of enjoyment.

It is evidently not the interest of the merchant to encourage the liquidation of his debt speedily, provided he sees that the property does not diminish in value below his security. It is common therefore, for the planter to procure such pecuniary advances from the merchant as may continue the period of consignment into all the extravagances of a trip to Europe, a tour of the continent, etc. When the merchant thinks the holiday time is over, he shuts his purse strings, and sends the planter back to his estate with a flea in his ear. The planter returns from turtle, turbot and venison to his dry salt fish and plantains, curses the merchant for illiberality, lives as well as he can to console his spirits under the wretched alternative, and becomes again the bailiff of the estate. *Esto perpetua.*

The attorney of a property is a person left in charge by the proprietor during his absence from the colony, and who is responsible for the proper conducting of the concern during such absence. The customary allowance for this duty is 10 per cent. But with long established and extensive properties, where

the revenue is very considerable and the duty of the attorney easy, a less sum is mutually agreed upon. The attorney transacts the mercantile business of the estate, he superintends the supply of provisions and clothing, the erection of buildings and all ordinary and extraordinary expenses. He in fact combines the duties of the proprietor and his town agent. And his principal cares are to regulate the expenses of the estate in proportion to its income, to provide it with a proper and efficient manager and to see that the produce gets to a good market.

An attorney should, if possible, give over an estate in the same (or better) condition as that in which he received it. With regard to the number of negroes, this, from the pressure of a severe sickly season, will frequently be impossible. But it will be very easy to show that proper attention has been paid to the comfort of the negroes and to their proper medical attendance.

Keeping the buildings and works in a good state of repair is a duty of equal weight, and these duties will require the presence of the attorney upon the property often enough to give him a proper idea of the manner in which the manager discharges his duty both with regard to cultivation and care of the negroes. It seldom happens that one man combines the requisite qualifications for both an attorney and manager any more than that of proprietor and manager, and as it is of most consequence to have a person in charge of the estate of an absentee whose business pursuits enable him to do the legal and mercantile business in the capital, the attorneyship and management are most generally discharged by different persons.

MANAGEMENT OF ESTATES.

The manager proceeds to the hospital to see how the sick fare, whether their medicines have had the desired effect, and also to receive complaints and new patients. When the doctor attends early, which is much to be desired, the manager accompanies him in his visits to the sick, explains to him the characters and habits of the different cases, and receives his instructions, all cases and prescriptions being at the same time regularly noted in a journal kept for that purpose. It frequently happens that many present themselves for admission who have no visible ailment and who in a hospital of whites would be refused. But with the negroes we must be more tender; a day of rest or dose of salts, acting more upon the idea than the body of the negro frequently prevents a serious fit of sickness. The manager, by his attendance on the doctor, soon acquires a practical experience of the common effect of different remedies, and his acquaintance with the disposition of the negro, his prejudices and prepossessions, renders him a most useful assistant, and gives him the power of superintending the duties of the sick nurse effectually. The manager or a trusty overseer administers and mixes the prescriptions of the doctor during his absence. A disagreeable duty then occurs, the dressing of the sores, which from the dirty and careless habits of

the negroes are of a nature and frequency unknown amongst Europeans.

He then inspects the work and building, and in the different departments of the manufacture of sugar, rum, drying or cleaning coffee, or preparing cotton for the market, his utmost attention is required to the state of the weather, the quality of the fuel, the cleanliness of the boiling house, and the attendance of the overseers and their negroes to their duties about the buildings. He then proceeds to the fields to see that his canes are properly cut, weeded and supplied, his fields well drained, his plantains in good order, all fallen ones cut close to the stool, and his watchman on the alert, coffee and cotton cleaned and trimmed, and no water sprouts draining the sap of the tree from the green coffee. He receives the reports of defaulters from the different gangs, compares them with the entries in the hospital, and punishes either on the spot or next morning those delinquents who have been found missing at their proper hours of duty.

A casual absence is punished by at the most half a dozen lashes, but as absentees are generally habitual defaulters, it becomes often necessary to be more severe. And here a few observations are necessary that may tend to correct the prejudice among Europeans of believing that corporal punishment is among negroes inflicted to excess. I make the assertion, and every man of candor will support it, that in hardly any known instance of crime is the punishment inflicted upon the negro one-half or one-third so severe as what would in a similar offence be inflicted on the white delinquent. It has been the writer's lot to witness in numberless instances, both in the execution of the civil and military laws of the mother country, corporal punishment commonly inflicted so severely as to confine the offender for many weeks afterward in a hospital under the strict charge of a surgeon. On an estate punishments are never inflicted to such an extent as to prevent the negro from returning to his work immediately after. The law allows no more than twenty-five lashes to be given any one time for any offence, and the interests of the master seconds the laws. It is only in cases of notorious delinquency, when the magistrate is called to punish publicly and officially, that punishments can ever be said to be severe. But even then they are far below the scale of European infliction. The law in some instances may be broken, but when it is considered that the manager who breaks the law is at the mercy of every discharged overseer who may choose to inform against him, excessive punishment is a measure of serious risk and is in fact rarely known to be practised. It is the case with every gang of negroes, as with regiments in an army or crews of ships, that the punishments are the monopoly of a certain number of notorious delinquents, whose want of conduct and character is perpetually leading them into crime and concomitant punishment. Four or five desperate characters of this kind will keep an estate of 300 negroes in the perpetual necessity of corporal punishment. It is, therefore, unjust to say that because these few are marked

with the whip, like an English deserter, that they have a hard or cruel master: and more especially when further examination would show that with the rest of the gang scarce the mark of a lash is seen. The law of punishment is in fact too lenient, since it incapacitates the master from punishing serious offences as they deserve, and with desperate offenders has no effect. It should be extended to fifty lashes, but with this ordinance, always to be administered before the gang, in the presence of the medical attendant, and all the white servants of the estate. This exhibition is a more complete check upon wanton tyranny than any law could be, and with the negro would have a much greater effect than the mere pain of punishment. It would obviate the inconvenience of constant application to the magistrates, and, without doubt, would considerably decrease the number of punishments. Indeed, it is much to be wished that the custom of punishing before the whole gang, in the manner of a court martial, was in general use, as there is no doubt of its superior efficiency over the common method of infliction, and the shame attending the exposure would operate equally with the punishment.

One of the most serious duties of management is attention to the Creole negro gang of the estate. The negro parents, though not generally deficient in affection to their offspring, yet are always lamentably so in those habits of cleanliness and wholesome nurture without which it is impossible to raise their infant progeny. The manager must descend to the most minute particulars of the cares of the nursery. And he will find his greatest stock of patience put to trial by the filthiness, obstinacy, neglect and stupidity of the negro mothers.

Generally speaking, the Creole negroes of an estate are raised more by the attention of the whites than of their own parents, and the most constant and unwearied attention is necessary to prevent the most pernicious practices of the mothers, even on the persons of their own infants, inoculation for yaws or leprosy being practised by the women in order that they may be excused from their daily labor to attend the child. There is scarcely an instance where gangs have increased or kept up their numbers, however favorably constituted, without the intervention of rewards to the parents for raising their offspring, united to the extraordinary care of a humane manager. Every day must be seen the children drawn up under the care of their proper nurses—with clean skin and feet free from chigoes. A mess must be regularly made for them exclusively of nutritious diet. They must by no means be allowed to ramble about the negro yard, but must be kept in a separate building or children's house, within a very short distance of the manager's dwelling, so as to be constantly under his eye. At proper seasons they must be physicked as they require it, to destroy the intestinal worms with which they are most peculiarly infested. And the kitchen offal should be distributed to them with a generous hand. Those from 5 to 10 years of age should be collected into a small working gang for trifling jobs, that may acquire habits of industry, but should by no means be employed beyond the

bounds of what might be deemed unwholesome exercise. With these precautions there is some chance of keeping up the numbers of an estate, which is otherwise impossible.

The apportioning of the labor to the strength of the gang in general is another point of essential consequence, and the standard by which to begin is to require from the able negro one-third or at the utmost one-half of the labor that would in the same time be performed by an able European laborer. With this proportion an estate of 200 negroes, being a fair gang should make 400 hogsheads of sugar or 200,000 pounds of coffee, or 180,000 pounds of cotton, supposing the soil to be good, the works adequate and the cultivation of proper extent. But sugar is the only cultivation upon which this return can be expected.

NEGROES.

There is no subject upon which so much difference and error of opinion subsists as the description of the negro character.

On one extreme old Spanish colonial writers have labored to prove them inferior in intellect and designed by Providence to show the lowest state of degradation in humanity. In opposition to this, *Les Amis de Noirs* wish to exalt them above all examples of civilized society and to endow them with a greater share of instinctive abilities and natural virtues than the most favored of Europeans. Between such ridiculous assumptions the truth may be easily discovered by the simple test of those principles that constitute the superiority of science and civilization over ignorance and barbarism—that exalt the union of society over the feuds of individual interest.

In Africa a number of petty tribes and governments, formed upon the first rude principles of individual ascendancy, with laws scarce more than sufficient to make the authority of the despot, acknowledged amongst his subjects, forbids at once the introduction of science and leaves each individual to depend upon the strength of his natural talents and the might of his arm for subsistence. Establishments are destroyed as fast as they are erected, and the petty jealousies of a thousand despots keep alive in Africa the flames of war, desolation and slavery. Under such circumstances what must be the character of the negro; what even would the white man's probably be?

Barbarism in all countries and in all ages gives the same picture of despotism amongst individuals who rule, and slavery amongst those who are governed. The character of the Celt, the Hun, the Goth and the Vandal in the extreme era of their ignorance and barbarism is at this day, with allowance for the influence of climate, the character of the negro. It implies no extraordinary debasement of nature to account for the blemishes that appear at first sight so monstrous. The negro is cunning; the barbarian of Europe is politic; the negro is revengeful, so is the Goth; the negro is a thief, so was Rob Roy; the negro is a liar, so are all those who do not discover in society the virtues of truth. The negro is indolent, so are all those who can procure the necessities of life without labor and who have

no ideal wants besides. The negro is obstinate, treacherous and ungrateful, lascivious, intemperate and inconstant, so has nature formed all mankind, till religion and reason reduce the selfishness of individual gratification to the standard of social expediency.

It is ridiculous, because we find in the negro natural vice uncontrolled, to mark him as a monster. We might, by a parity of reasoning, level the uneducated of our own color to the grade of beasts, and it is equally ridiculous to suppose that to the negro, whose only pleasures are the gratification of his natural appetites, and whose only pains and cares arise from the mortifications or denial of those appetites, that the same arguments would avail as those we should use to an enlightened European. Ignorance and barbarism in all nations and colors are alike the parents of violence—tyranny on the one hand and slavery on the other—and till the impulse of nature is brought under subjection to the laws of society and the strong hand of government reduces the violence of the individual to the bounds of common justice, so long will the wiser be the masters and the ignorant be slaves, and so long will coercion be the only pledge of obedience and all the vices we have enumerated be characteristic of the state of slavery.

The creole negroes of the West Indies owe their superiority over the native Africans to their being bred up in society, with the laws constantly operating before their eyes, and they are the more content with their situation by seeing that those laws are to them a sure protection from violence—in fact, they begin to have some idea of the policy of good behavior as it operates on their general state of comfort, and they comprehend the use of that self-denial without which the African is either outrageous or melancholy. This is their dawning of political reason and it would be highly dangerous to force the light upon them further than nature calculates them to bear it. To theorists it should therefore be said time will accomplish all you wish, and the change will then and ought to be so gradual that the chain of society will still continue perfect and need fear none of those dreadful fractures with which the party endeavors of misguided men have threatened it.

Terms for the Sale of Sugar.

The announcement in these columns last week, that the factor plan of selling sugar had been abandoned by refiners as the exclusive system of sale has attracted much interest in grocery circles throughout the country. The refiners place the entire responsibility for their action upon the wholesale grocers, at whose solicitation they claim the factor system was adopted, and to whom they looked to have the details of the system carried out.

Many inquiries have been received at the office of this journal, asking what differences are made by refiners from their daily quotations posted in their offices and telegraphed throughout the country by the agents of the Wholesale Grocers' Association. It may be stated on authority that the prices posted in offices of the refiners are simply the quotations

upon which sales are made to factors or agents. These include the allowance of $\frac{1}{4}$ c. per pound commission, which is paid at the end of three months from the date of bill. While the business that is otherwise transacted in the offices of the refiners from day to day is not necessarily antagonistic to these posted prices, it is not necessarily governed by them; and as stated in these columns last week, the terms upon which business is actually done are based upon ordinary methods of merchandising and are controlled by such matters as credits, quantities and the date of payment. Manufacturers, for instance, are able to purchase their supplies at the prices quoted to the grocers, and the $\frac{1}{4}$ c. per pound is immediately deducted on their bill without waiting for the three months to expire.

It is not possible to give any specific instances of sales at prices below the grocers' prices less the 3-16c. commission. The terms of such sales are withheld by the refiners on the ground that they are the secrets of their own business. It may be stated, however, that a buyer with an order for 200 barrels, even if he represents a good house as far as financial responsibility is concerned, does not as a rule pay the same price as a cash purchaser for 5000 barrels. Sales of the latter volume are frequently made, and between the two instances named there is ample room for a range of prices.

It was learned yesterday that refiners will continue to sell sugar to the W. M. Hoyt Company of Chicago on the same terms as though the company had not withdrawn as factors. Commissions will be reserved and paid in the usual way. They can not well act otherwise, since the action of the Hoyt company has started a price-cutting movement, in which practically all the large jobbers in the vicinity are participating, and the refiners could not, therefore, attempt to discipline Hoyt without at the same time disciplining the others. The refiners, moreover, have received word that Hoyt only did openly what his competitors were doing secretly, and the Hoyt company was at a distinct disadvantage from the fact it employs no traveling salesmen. Most of the business of a large number of its competitors, on the other hand, is obtained by traveling salesmen who, when prices were equal, would sometimes on their own account make a small concession to obtain the business.

The factor plan of sale is still maintained in the East and in Pennsylvania. When the representative of the refiners was asked if a large jobber—even in the East—desired to purchase sugar outright without restrictions, as far as selling prices were concerned, whether such a jobber could purchase upon terms as favorable as those named under the factor plan, the following non-committal answer was given: "We have never refused to sell any responsible jobber yet."

The following statement by the Boston News Bureau may, according to a local refiner, be accepted as representing the exact attitude of the American Sugar Refining Company toward the factor plan: "It is a well-known fact by every one in the sugar trade that the factor system was adopted at solicita-

tion of the wholesale grocers; that for years they had been unable to make a profit on refined sugars, and that they urged upon the American Sugar Refining Company this plan of selling its sugars. There is a decided difference of opinion among refiners in regard to the advantage of the factor plan. It is difficult to see in any way how it benefits the American Sugar Refining Company. It was never adopted for its benefit, but for the benefit of the grocery trade throughout the United States, and the breaking up of this system is apparently through quarrels among the grocers in which the American Sugar Refining Company had taken no part. The factor plan is worth absolutely nothing in dollars and cents to the American Sugar Refining Company, and if given up can not affect it financially. It is in the interest of the grocers, and the American Sugar Refining Company is absolutely indifferent to it, except in so far as it desires to gratify the wishes and promote the prosperity of the sugar trade throughout the country. What has arisen in some Western States is between the grocers themselves, and is not directed against the refiners, nor can it be considered in the least as evidence of hostility toward them. The plan was never forced upon the grocers, but was adopted at their earnest solicitation. If any grocer claims that he was forced to sell sugar upon the factor plan it is probable that the pressure was brought to bear by the Grocers' Association or fellow-grocers."—*N. Y. Journal of Commerce*.

Syrup Drawbacks.

Considerable concern is expressed by local syrup exporters over the delay that has been experienced in securing the payment of drawbacks by the government of the duty on foreign sugars used in the manufacture of this product. It was learned by inquiry in the trade that no such drawbacks have been paid on sugars imported under the present tariff act, payment having been suspended by the government on account of a difficulty in determining just what proportion of the drawback should be credited to syrup and what to the finished sugars. In addition, there are still a large number of claims for drawbacks accruing under the operation of the Wilson tariff. As a result a large amount of capital which is claimed by exporters is now in the hands of the Treasury Department, and this, in connection with the uncertainty attendant upon the absence of fixed drawback allowance, has caused no little dissatisfaction. Sugar refiners, while affected, are less interested than syrup exporters, as sugar is sold at "short prices," that is, allowance is made for the drawback, which is collected by the exporter.

The drawback on syrup has been a problem for the Treasury Department for some time. About three years ago a special commissioner consulted with refiners, and after considerable investigation they arrived at a rather complex formula for determining the amount of sugar in syrup on which to compute the drawback, taking into consideration at the same time the selling prices of sugar and syrup. That formula or schedule in part follows:

Test of raw sugar used. Degrees.	Allowance for 1 gallon of syrup. Pounds.	Test of raw sugar used. Degrees.	Allowance for 1 gallon of syrup. Pounds.
99	1.36	96	1.40
98	1.37	95	1.41
97	1.39	94	1.43

Later another commission was appointed to investigate the subject further, and pending their report, as just stated, all drawbacks on syrup have been held up by the treasury department. The present commission is composed of Col. Ira Ayer, special treasury agent at this port; Dr. C. A. Crampton, chemist of the internal revenue office at Washington, and F. J. Crilly, special deputy collector at Philadelphia. It is now understood that this commission will be ready to report within a few weeks, which will give decided satisfaction to the exporting trade.

Several prominent syrup exporters were conversed with yesterday in reference to the drawback problem. A member of the firm of Haebler & Co., who are among the largest shippers of this article, when questioned said: "The present method of the government for determining the drawback is entirely wrong, and as a result the syrup gets only about one-third of the rebate to which it is entitled. Under the present system the drawback is calculated upon the selling price or 'commercial value' of the syrup, which is a false basis, as the selling price has nothing to do with the drawback. The law on drawbacks provides 'that when imported materials on which duty has been paid are used in the manufacture of articles manufactured in the United States, there shall be allowed on the exportation of such articles a drawback equal to the duties paid on the material used less 1 per cent. of such duty.'

"Now, the government has prepared a complex formula which is absolutely unnecessary and absurd. The government admits that 40 per cent. of syrup is sugar. Now, a gallon of syrup weighs from eleven and three-quarters to twelve and one-quarter pounds, so that on the government's own admission it contains from 4.7 to over 4.8 pounds. Instead of allowing a rebate on such quantity, however, the government has figured out a formula which allows only about 1.4 pounds of sugar to the gallon of syrup, or, in other words, less than a third of the actual quantity. The government officers have apparently paid no attention to the law, and their object seems to be to refund just as little of the duty as possible.

"For the present allowance of about 1.4 pounds of sugar to the gallon there seems to be no other ground than a report made to the collector under date of June 28, 1895, which states that 100 pounds of raw centrifugal sugar testing 96 will yield 92 pounds of hard refined sugar and six pounds of syrup, for which an average duty-paid price of 3.882 cents for the 92 pounds of granulated sugar was estimated, and at the same time stated that 5 cents per gallon was a fair valuation to place on the syrup as 'thrown from the centrifugal.' We contend that this estimated price for the syrup, in the first place, has nothing to do with the drawback, and second, that it is entirely arbitrary, and would, if continued, be subject to

frequent change, according to the fluctuations in the market price of syrup.

"It is a very simple matter for the government to ascertain the actual amount of sugar in syrup, as this is readily shown by the polariscope, and as every parcel of syrup is tested there is no difficulty in keeping an accurate record. The only other point to be established, then, in order to get at the drawback, is the value of the sugar from which the syrup is made. This can be easily shown from the customs records. The refiners always make a sworn statement of the cost of the raw sugar in the export entries made by them for every lot of syrup exported. It must be admitted from the wording of the law that the only question to be considered in computing the drawback is the amount of duty paid on the sugar contained in the syrup. The question of selling price or commercial value has nothing to do with this. Moreover, the commercial value established by the Treasury Department was taken two years ago. Since then the value has increased, which has added to the injustice to the exporter.

"As an instance of the absurdity of taking the selling value as the basis, it may be stated that a buyer who purchased 100 barrels of syrup at, say, ten cents a gallon, would receive a greater drawback per gallon than a large purchaser who took 1000 barrels of identically the same syrup, which he would get for, say, nine cents per gallon on account of the large quantity purchased.

"The exporters of syrup have been urging the government to settle this question for more than two years, but up to the present time we have been able to obtain only the reply that the matter was 'under consideration.' Of course this delay is greatly injuring us in our business as competition forces us to allow for the drawback, while at the same time we can not know just what to allow."

John Hales, another exporter, said: "Under the old tariff it was a year and a half before we got a cent of drawback. Finally an arrangement was made by which the drawback on all syrups costing not over eight cents, as 'thrown from the centrifugal' were to receive the full drawback, leaving the matter still unsettled, as far as higher priced goods were concerned. Personally I am satisfied with the settlement made by the government for goods costing eight cents or less, and only wish that some agreement might be speedily reached on higher cost goods, as the present uncertainty is a serious inconvenience to us. For instance, the books of many exporters to-day would probably show an actual loss, as it is impossible to know just how much the drawback will be."

Chauncey C. Ryder, a custom-house broker who has paid considerable attention to this matter, said: "I think that there is no question that the government made a mistake in its method of arriving at the drawback. The present method had been tried in the case of tin cans, and the treasury officers apparently thought that it would work well in the case of syrup. They now, however, practically admit their mistake, and will, I believe, remedy it. I have no doubt that a fixed rate per gallon will be established instead of the present complex formula. The main question now is to arrive at an average rate which shall both be fair to the exporter and at the same time protect the government."—*N. Y. Journal of Commerce*

APRIL 9.

WEEKLY MARKET REPORT.

1898.

SUGAR.	April 2.	April 4.	April 5.	April 6.	April 7.	April 8.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
Open Kettle.								
Choice	— @ —	3 1/2 @ —	3 1/2 @ —		3 1/2 @ —		3 1/2 @ 3 1/2	Quiet.
Strict Prime	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4		3 1/2 @ 3 3/4		2 1/2 @ 3	
Prime	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4		3 1/2 @ 3 3/4		2 1/2 @ 2 1/2	
Fully Fair	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4		3 1/2 @ 3 3/4		2 1/2 @ 2 1/2	
Good Fair	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4		3 1/2 @ 3 3/4		2 1/2 @ 2 1/2	
Fair	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4		3 1/2 @ 3 3/4		2 1/2 @ 2 1/2	
Good Common	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4		3 1/2 @ 3 3/4		2 1/2 @ 2 1/2	
Common	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4		3 1/2 @ 3 3/4		2 1/2 @ 2 1/2	Steady.
Inferior	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2		2 1/2 @ 3 1/2		2 1/2 @ 2 1/2	
Centrifugal.								
Plant'n Granulated.	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2		— @ 4 1/2		4 1/2 @ 4 1/2	
Off Granulated.	— @ —	— @ —	— @ —		— @ —		4 1/2 @ 4 1/2	
Choice White	— @ —	— @ —	— @ —		— @ —		3 1/2 @ 3 3/4	
Off White	— @ —	— @ —	— @ —		— @ —		3 1/2 @ 3 3/4	
Grey White	— @ —	— @ —	— @ —		— @ —		— @ —	
Choice Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2		4 1/2 @ 4 1/2		— @ —	
Prime Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2		4 1/2 @ 4 1/2		8 1/2 @ 8 1/2	
Good Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2		4 1/2 @ 4 1/2		8 1/2 @ 8 1/2	
Seconds	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2		3 1/2 @ 3 1/2		3 1/2 @ 3 1/2	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	Holiday.	None in first hands.	Holiday.	None in first hands.	Quiet.
Choice								
Strict Prime								
Good Prime								
Prime								
Good Fair								
Fair								
Good Common								
Common								Quiet.
Inferior								
Centrifugal.								
Fancy	— @ 14	— @ 14	— @ 14		— @ 14		— @ 14	
Choice	— @ 13	— @ 13	— @ 13		— @ 13		— @ 13	
Strict Prime	— @ 12	— @ 12	— @ 12		— @ 12		— @ 12	
Good Prime	— @ 11	— @ 11	— @ 11		— @ 11		— @ 11	
Prime	— @ 10	— @ 10	— @ 10		— @ 10		— @ 10	
Good Fair	— @ 9	— @ 9	— @ 9		— @ 9		— @ 9	
Fair	— @ 8	— @ 8	— @ 8		— @ 8		— @ 8	
Good Common	— @ 7	— @ 7	— @ 7		— @ 7		— @ 7	
Common	— @ 6	— @ 6	— @ 6		— @ 6		— @ 6	
Inferior	— @ 5	— @ 5	— @ 5		— @ 5		— @ 5	
SYRUP.	— @ —	— @ —	— @ —		— @ —		— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —		— @ —		— @ —	Fine gran. and St. A. up 1/4.
Centrifugal, 96	— @ —	— @ —	— @ —		— @ —		— @ —	
Granulated	4.90 @	4.90 @	4.90 @		4.96 @		4.47 @	
Standard A.	4.78 @	4.78 @	4.78 @		4.84 @		4.54 @	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —		— @ —		— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	Holiday.	— @ —	Holiday.	— @ —	
N. O. Fair	— @ —	— @ —	— @ —		— @ —		— @ —	
Cuba, 50	— @ —	— @ —	— @ —		— @ —		— @ —	
LONDON:								
Java, No. 15 D. S.	11s. 3d.	11s. 3d.	11s. 3d.		11s. 3d.		11s. 0d.	Dull.
A. & G. Beet	9s. 0 1/2 d.	9s. 0 1/2 d.	9s. 1 1/2 d.		9s. 0 1/2 d.		8s. 10 1/2 d.	Dull.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	Strong.
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	Mar. 30	Tons	290,805
At four ports of Great Britain to.....	Mar. 26	"	80,500
At Havana and Matanzas to.....	Mar. 30	"	92,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APRIL 8, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	143	5,194	934
Sold.....	143	8,643	951

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO APRIL 8, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	22,009	1,361,723	181,201
Sold.....	22,009	1,339,303	181,201
Received same time last year....	81,522	1,199,006	215,997

APRIL 9.

WEEKLY MARKET REPORT.

1898.

RICE.	April 2.	April 4.	April 5.	April 6.	April 7.	April 8.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	2 00@4 50	2 00@4 50	2 00@4 50	2 00@4 50	2 00@4 50		— @ —	
CLEAN, Fancy.....	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6	5 $\frac{1}{2}$ @6		5 $\frac{1}{2}$ @6	
Choice.....	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$	5 $\frac{1}{2}$ @5 $\frac{1}{2}$		5 $\frac{1}{2}$ @5 $\frac{1}{2}$	
Prime.....	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5	4 $\frac{1}{2}$ @5		4 $\frac{1}{2}$ @5	
Good.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$		4 $\frac{1}{2}$ @4 $\frac{1}{2}$	
Fair.....	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$	4 $\frac{1}{2}$ @4 $\frac{1}{2}$		4 $\frac{1}{2}$ @4 $\frac{1}{2}$	
Ordinary.....	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4	3 $\frac{1}{2}$ @4		3 $\frac{1}{2}$ @4	
Common.....	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$	3 $\frac{1}{2}$ @3 $\frac{1}{2}$		3 $\frac{1}{2}$ @3 $\frac{1}{2}$	
Inferior.....	Nominal.	Nominal.	Nominal.	Nominal.	Nominal.		Nominal.	
No. 2.....	1 $\frac{1}{2}$ @3	1 $\frac{1}{2}$ @3	1 $\frac{1}{2}$ @3	1 $\frac{1}{2}$ @3	1 $\frac{1}{2}$ @3		1 $\frac{1}{2}$ @3	
BRAN, $\frac{1}{2}$ ton.....	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00		12 00@—	
POLISH, $\frac{1}{2}$ ton.....	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00		17 00@18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APR. 8, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received.....	411	260
Sold.....	—	1,478

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO APR.
8, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	448,481	8,940
Last year.....	375,520	8,533

Sugar.

The sugar market at the close of the week was firm, and a fair demand prevailed.

Molasses.

No open kettle molasses in first hands; centrifugals quiet.

Rice.

Rough rice was strong at the close of the week, but trading was restricted owing to the lack of receipts, and consequently small offerings. Clean rice was also strong.

Barbados.

The hot and sultry weather which March has inherited from February relieved itself somewhat on the 10th in much needed rain. Between the 10th and 13th three to four inches fell, refreshing to the old plants as well as to the young: indeed, the ripe, or rather ripening canes, forced ripe, and scorched by the hot suns of the last two months, needed, and were thirsty for, the rain-water, which will surely improve the juice, and probably the yield. Windmills have been at a standstill for over a week for want of wind. The March winds have gone mad, sometimes lulled to a dead calm, at others shifty and unstable, veering round the points of the compass, north, south, and frequently west, so that nothing can be done until it settles once more in some easterly point. Steam mills, however, are pushing on, specially conspicuous during the past week with their long trails of smoke all blowing the wrong way from west

to east. It is a question whether the westerly winds—the "strange" winds, as our people call them—are blowing us ill by staying our mills. It is true that the juice is sinking 10 deg.—a good test of ripeness, but when it takes 2000 gallons of cane juice to make a ton of sugar, it may well be doubted whether the ripeness is natural, and the juice up to mark. The yield to date has remained constant 1 $\frac{1}{2}$ tons to the acre from splendid looking canes—quite good enough for 2 $\frac{1}{2}$. The probability is that when the mills are loosed in April, a better yield per acre will be obtained. The wish is truly father to the thought, but it will be remembered that a few years back (nine, we think) March was dead calm, and that when reaping operations recommenced in April, the yield was markedly improved. However, the bulk of the crop at that time consisted of the lamented Bourbon, while of the performance of the increasing multitude of supplanting varieties no man can speak with certainty—opinions with regard to them are so contrary, and their behavior from year to year so uncertain.

Undoubtedly the best two months for gathering sugar in this island are April and May: before that period the canes are just verging on fitness, afterward they begin to deteriorate and decay, and are preyed upon and wasted by all sorts of creatures, fungus, bipeds and the large remnant of rats which the mongoose have not killed, and with which some say they fraternize: but whatever the cause of loss and decay, after June it is enormous. Wind-dependent as we are, and sun-dependent for drying megass for cooking juice that sighs and sobs and still further loses and deteriorates in open kettles, our loss must needs be great, and must continue to be so long as reaping, which ought to be smartly effected in at least three months, is long drawn out to four, and in some instances to five. It is untenable to stick to our effete old processes, as unwise as it would be to build nowadays a fleet of wooden sailing ships. As the *Produce Markets Review* observes: "Sugar, under existing circumstances, cannot be grown at a profit under the old process they employ." It behooves us then to consider carefully the best methods for improving our manufacture, facilitating our

reaping and preventing loss. In this island we can do little outside sugar cane—food roots for local consumption being about the sum of our subsidiary industries, which, by the way, will be of extreme importance, should our American trade route become infested with hostile fleets.—Reporter, March, 19.

Reciprocity With Spain.

By Associated Press.

LONDON, March 21.—The Madrid correspondent of the *Standard* says:

Senor Polo y Bernabe, the Spanish minister at Washington, has been authorized to make all the concessions possible in order to obtain the speedy conclusion of a fair reciprocity treaty. By America's expressed desire, this will also include the Philippines. Both the Cuban and Spanish Cabinets are anxious to expedite the negotiations to the utmost.

Senor Polo y Bernabe wires that he has found the American State Department very favorably disposed on this point, but more interest than ever is shown in the international situation, pending the Maine affair.

Personal.

Mr. B. J. Morey, of Patterson, well known and highly esteemed in Louisiana and elsewhere, was in the city during the past week, accompanied by Mrs. Morey, and stopped at the Grunewald.

Mr. Victor Jorda was the manager as usual this season on the fine Reserve plantation of Mr. Leon Godchaux and added to the laurels he already possesses as a plantation manager. Reserve is a splendid exhibition of what good management can do.

One of the best sugar makers in the State is Mr. J. H. Fleetwood, who was during the past season in charge of the boiling department on the Rebecca plantation. It is needless to say that Mr. Fleetwood is never in want of a crop, and he seems to add to his skill every campaign.

Col. William Minor, a prominent sugar planter of Terrebonne parish, and a brother of the Hon. H. C. Minor, lately deceased, was in the city last Tuesday en route home after a trip to Natchez.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommenders the best in the State. Address J. PRANZ, Eureka, St. Louis county, Mo. 4-6-98

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. R. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS in the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98.

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98.

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address G.E.O. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98.

WANTED—A CARPENTER, WITH LARGE EX- perience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address Box 16, Ponchatoula, La. 3-26-98.

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98.

WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assistant boiler in some large factory. Best of references given. W. B., Box 62, Donaldsonville, La. 3-31-98.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as eleven seasons of plantation boiling; understands clarification; strictly temperate and reliable; A1 reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Paincourtville, La. 3-18-98.

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EX- perience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—A POSITION AS CHIEF ENGI- neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES PO- sition at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—EXPERIENCED GERMAN AGRI- culturist, beet sugar culture a specialty, desires position; best references. Address Box 309, Irvington, New Jersey. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Piety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; he best of references. Address EXPERT, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINI'S, 2433 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2630 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT EN- gineer; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louisiana street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La.

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBRE, Central, La. 1-20-98

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address GOTTLIEB KOELLE, 1938 St. Louis street, city. 1-21-98

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. McCRACKEN BROS., Rola La. 1-20-98

WANTED—POSITION AS STORE OR BOOK- keeper or other clerical position on sugar plantation; by experienced and competent married man; speaks English and French; references as to competence, reliability and sobriety. Address MAX P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR AS- sistant engineer; has had fourteen years' experience and can furnish first-class references. Address F. O. W., Larcadeville P. O., La. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-15-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; A1 references from former employers. G.E.O. H. DUUGLASS, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTA- tion by the year, as carpenter and wheelwright; never drunk, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98

WANTED—A CHEMIST DESIRES TO TAKE charge of the chemical work of a sugar factory; graduate of the Agricultural College of Utah, with about two years' experience as assistant chemist in the Utah Experiment Station. Address P. O. BOX 422, Logan, Utah. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. F. anklin street, city. 1-13-98.

WANTED—A POSITION AS ENGINEER TO erect, repair or operate machinery on sugar or rice plantation; satisfaction guaranteed. Address W. C. B., 537 Henry Clay avenue, New Orleans. 1-5-98

WANTED—A POSITION AS MANAGER FOR 1898, by a man of long experience, who can furnish reference. Address A. D. LACY, Patterson, La. 1-3-98

WANTED—POSITION AS ASSISTANT MAN- ager or overseer on sugar plantation for 1898, by a single young man with four years' experience; handles labor successfully; is well versed in cultivation and all branches of plantation work; habits strictly temperate; best references furnished. Address "OVERSEER," care of A. Koehritz, Assistant Postmaster, Napoleonville, La. 12-30-97

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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AND

SUGAR MANUFACTURER,

OFFICIAL ORGAN OF THE

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Ascension Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.*

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John Dymond, President.

The Sugar Planters' Association.

The April meeting of this association was held last Thursday evening at its rooms on Carondelet street. President Rost was in the chair, Secretary Dykers at the desk and there was a fair attendance, among those present being Messrs. L. M. Soniat, Henry McCall, J. P. Kemper, John Dymond, E. P. Eastwick, Jr., W. C. Stubbs, E. W. Deming and C. Robert Churchill.

On motion, the reading of the minutes of the previous meeting was dispensed with. The names of Messrs. C. S. Burt, S. S. Lees and Hubert Edson were proposed for membership in the association by Mr. Wibray J. Thompson and they were all unanimously elected.

President Rost then referred to the death of the second vice president of the association, Hon. H. C. Minor, which had occurred since the last meeting, and on motion of Mr. McCall he appointed Messrs. Henry McCall, John Dymond and L. M. Soniat as a committee to draw up suitable resolutions expressive of the sorrow of the association, to be presented at the next regular meeting.

Hon. Henry McCall then offered the following resolution:

Resolved, That the secretary of the Louisiana Sugar Planters' Association be and is hereby authorized and instructed to communicate with the Hon. Wilbur F. Wakeman, of New York, secretary of the American Protective Tariff League, with the view of having this association enrolled as a member and defender in said Tariff League.

The resolution was adopted.

The regular topic of the evening—"Making Concrete in the Multiple Effects," was then taken up and Messrs. L. M. Soniat and E. W. Deming read papers on this subject. The paper read by Mr. Deming was prepared by Mr. S. Morris Lillie, of Philadelphia, while Mr. Soniat's paper was prepared by himself. The papers were received with thanks and ordered published and they appear elsewhere in this issue. A full

discussion of the subject matter of the papers then ensued, which was participated in by Messrs. McCall, Dymond, Stubbs, Rost, Soniat, Churchill and Eastwick. A full stenographic report of the discussion will appear in our next issue.

After leaving the selection of a topic for discussion at the next meeting to the discretion of the president, the meeting adjourned.

The Louisiana Crop.

Cool weather, a dozen degrees lower than the planters would like to see, again prevailed during several days of the past week, and prevented the young cane from developing as rapidly as it should. While vegetation has been checked, however, there has been no actual damage so far chronicled, and the prospects are, on the whole, very encouraging. Plant cane continues to give rise to some complaint on account of the gappy stand it is making in certain localities, but it appears to be improving, while stubble is universally reported to be in excellent shape. The weather has been good for field work, and the necessary showers and higher temperature may be confidently expected in the near future.

Sugar Beet Industry in the United States.

The Secretary of Agriculture has just transmitted to the President for the information of Congress a very full report on the present condition of the sugar beet industry in this country, and of the operations of the department during the past season in relation thereto. The document consists of two parts, the first being a report from the chemist of the department, Dr. H. W. Wiley, in which the history of the industry is reviewed and giving a full account of the season's operations.

The principal distribution of sugar-

beet seed the past season was made through the agency of the agricultural experiment stations, the directors of many stations having been appointed special agents of the department for carrying this method into effect. Seeds were also sent to about 10,000 farmers in different parts of the country, with full instructions for planting, cultivating, and sampling for analysis. These instructions were contained in *Farmers' Bulletin No. 52*, of which during the season nearly 150,000 copies were distributed. The samples for analysis were sent either to the agricultural experiment stations or to the Department of Agriculture. In all about 2300 samples were received for analysis at the Department of Agriculture.

The best results were reported from the States of New York and Michigan. Other States in which reports were favorable were Wisconsin, Ohio, Indiana, Minnesota, Nevada, South Dakota, Wyoming and Colorado. States giving fair results were Iowa, Nebraska, New Jersey and Pennsylvania. In general, it was found that after passing south of the mean isotherm of 71 deg. F. for the three months of June, July and August, the results were poor. It is found that the belt of territory included between the limits of the isotherms of 71 and 69 deg. may be regarded as the basic belt of the beet sugar industry. The best results are obtained within or north of this belt, other climatic conditions being favorable. Extreme northern limits of sugar beet culture are determined only by the advent of freezing weather.

A comparison of analytical data with the thermal area shows a remarkable agreement. In States so situated that their northern portions are in the favorable thermal area, while their southern portions are without, comparison of the analyses of the beets grown in the southern, central and northern portions of these States shows a regular gradation of excellence from south to north.

The conditions of growing beets under irrigation have been studied somewhat, but imperfectly. The data collected, however, is very reassuring, and lead to the evident belief that irrigated lands, under proper thermal conditions, will give most excellent returns with beets.

The report contains not only the analytical data obtained at the Department of Agriculture, arranged alphabetically

by States and counties, but also of the data which have been obtained at the agricultural experiment stations during the year. In all instances the data obtained at the stations agree very closely with those secured from the same States at the Department of Agriculture. These data from the experimental stations are collated and studied side by side with the data from the same States obtained from the Department of Agriculture, making a complete exposition of the results of investigations from all parts of the country. The collaboration thus secured between the States and the department has afforded the best possible results in the studies undertaken.

Experiments were also conducted in the production of high-grade beets. Some of the high-grade seeds obtained at the station at Schuyler during the continuance of the work at that point were found to have sufficient vitality to continue their growth. Other high-grade seeds produced from specially analyzed beets were procured from European growers, and, in collaboration with six of the experiment stations, comparative tests were made of these seeds in various localities. The stations collaborating in this work were Tennessee, Kentucky, Indiana, Iowa, Wisconsin and New York. The best results were obtained from the stations in Wisconsin and New York. The beets which were grown at the New York station were carefully selected for physical properties, and those which reached the standard of shape and size were subjected to individual analyses and preserved for the propagation of seeds for the season of 1898. In all, 800 beets were found to have the requisite qualifications for the production of seed, and these have been preserved during the winter in a silo and are to be distributed this spring to the various stations for seed production. A few of them which have exhibited peculiar strains of excellence have been preserved for the production of a new variety of beets, which it is proposed to call the American Elite. These beets have an average weight of about 30 ounces and an average content of sugar of 19 per cent. The purity of juices in similar beets was found to be about 85. These beets, having shown these remarkable variations from the standard in size and sugar quality, are evidently fitted to produce a new variety

of beets better suited to American farmers than the standard beets of Europe. It is the intention of the department to endeavor to establish a variety of beets of this kind which shall have at least a third greater weight than the standard sugar beet of Europe without losing anything in sugar content or in purity of juice. The immense advantage of such a variety of beet for American growers is easily seen. The most successful scientific work in the future will come from placing the seeds in the hands of a few reliable persons in each locality and securing a careful supervision of their work by some accredited agent of a State experiment station or the Department of Agriculture.

The report contains a chapter on the value of the sugar beet and the beet pulp as cattle food, giving the chemical composition of each, the ratio between the nutrients, and its general value as a producer of milk and fat, and as a sustaining ration.

The report closes with a chapter on statistics of sugar production in this country during the year 1897. During the season nine factories were in operation in the United States, namely: at Alameda, Los Alamitos, Watsonville and Chino, Cal.; Lehi, Utah; Eddy, N. Mex.; Grand Island and Norfolk, Neb., and Rome, N. Y. Forty-one thousand two hundred and seventy-two acres of beets were harvested, with an aggregate weight of 389,685 tons, a yield of almost 9½ tons per acre. This is less than the average in Europe, but with more scientific agriculture and judicious fertilization the yield in this country can doubtless be brought up to if not above the average of the best fields of Europe. The careful experiments of the New York Experiment Station at Geneva, with beets grown in collaboration with the Department of Agriculture, resulted in an average yield of over 16 tons of high grade beets per acre.

The total amount of beet sugar made in the United States during the year 1897 was 90,491,670 pounds, an average of 232 pounds per ton of 2000 pounds, or 11.6 per cent. of the weight of the beets. This is a less percentage than is obtained in Germany, but, considering the newness of the industry in this country, it is sufficiently encouraging. Reliable information shows that there

will be in operation in the United States during 1898 seventeen factories, new factories being located in Utah (1), Oregon (1), California (4), Michigan (1), and New York (1). It is safe to say that at least 80,000 acres will be planted in beets during the season of 1898. The yield of beets may be expected to be nearly 800,000 tons and of sugar about 180,000,000 pounds. These estimates should be reduced somewhat to represent the proper output of beet sugar in the United States; they are sufficient, however, to show the rapid growth of the industry, which will experience an enlargement of not less than 70 per cent. during the coming season. The percentage of beet sugar produced in the United States during 1897 to the total consumption was only $2\frac{1}{4}$, but the prospects are that in 1898 it will be nearly 4 per cent. of the total consumption, which now amounts to about 2,000,000 tons annually.

The second part of the report consists of a full account of the operations of the field agent, Mr. C. F. Saylor, who during the past season visited all the principal sugar-beet manufacturing plants and factories, and recounts the result of his interviews with both growers and manufacturers. Mr. Saylor's paper concludes with answers from the practical men in charge of various beet-sugar factories in response to a series of interrogatories concerning the more important features of the beet-sugar industry.

April Prospects.

From the diary of that distinguished *ante-bellum* sugar planter, Mr. Colomb, whose death was recently announced in our columns, we have secured some data concerning April weather in St. James parish before the war, which will be of general interest, showing how carefully all the crop conditions were considered at that time, and at the same time we have some side lights thrown upon the industry developing some of its features that are quite quaint and curious now that nearly half a century has intervened since these careful records were made. Crop conditions are common talk among us all to-day just as they were half a century ago. The omnipresent negro slave has disappeared and we tell of labor as plentiful or scarce. The crevasse issue was always

present half a century ago and we yet shudder at the dangers that confronted us but a year past. Happily our vastly improved levee system gives us now quite a different record in that respect from what we find in these old records of half a century ago.

The extracts we have made from Mr. Colomb's diary are as follows:

1851.

April 2, clear and cool. On the evening of March 27 the river was at the highest point ever known. Crevasse at Babin (not bad). One happened at T. Bunax, but was stopped; the one at Doyal is abandoned. April 2, river falling: 6 inches below high water. April 4, crevasse at Babin not yet stopped; the work has given away two or three times. April 7, crevasse at Babin's stopped yesterday. Water backing up in canals from swamps. River gone down 1 foot. April 9, river on a stand; back water rising. Is within 2 inches of surfaces. April 15, plant cane sprouting. Corn very fine. Ratoons coming out. River falling slowly. April 16, Jim Chicken and Edmond ran away. April 18, Alfred ran away. April 20, river 18 inches below. April 22, caught Edmond. 25th, river falling slowly; back water same. Pork worth \$15; molasses, 33c.; fair sugar, $5\frac{1}{2}$ c. 28th, first warm day this year. Doyal's crevasse broke away by a raft. 31st, crop growing well. Plant cane 2 feet high; ratoons 18 inches; corn 3 feet.

1852.

April 1, clear, warm. Ratoons very backward; hardly up in sandy land. Plant very good everywhere. Want rain much. River on a stand at foot of levee. 3d, pork \$17; fair sugar, 4 to $4\frac{1}{2}$ c.; molasses, 18 to 25c. 5th, corn good. River falling. Corn 40 cents a bushel. 7th, cane suffering for rain. Ratoons coming out, though backward. Plant very fine. 10th and 11th, very good rain. 13th, too much rain. 15th, river rising slowly. 16th, weather cold for season, and too wet. Corn turned yellow by cold and wet. 21st, cane yellow on account of rain and cold. 25th, river at a stand, 4 feet below last year's high water mark. 26th, flour, \$3.50; lard, 10c.; corn, 40c. per bushel; pease, \$1.50 per bushel; cotton, 5 to 8c. 27th, clear and cold. 28th, warm. 30th, cane and corn begin to look well again, since three days of warm weather.

1853.

April 2, warm and dry; cotton brisk; sugar and molasses very dull. 5th, river gone down one foot from high water mark. 6th, plant cane backward; ratoons rising out with warm weather. 11th, want rain for the crop; river 3 feet below this year's high water mark. 15th, cane backward; corn very fine; want rain. 18th, cane not improving, for want of rain. 20th, cotton, 10 and 11; sugar dull at 4 and $4\frac{1}{2}$; molasses 22 and 23, reboiled; pork \$14.50. 22d, river rising slowly; no rain for one month. 27th, corn very fine, 3 feet high; ratoons very fine. 30th, no rain for 35 days, cane very backward for this season.

1854.

April 1, clear, cool. 3d, frost. 12th, negroes died of cholera at Trasmond Landry's. Cane turned yellow by frost on 3d. Great State stake race came off on the 1st in New Orleans; 20,000 dollars won by Lexington, of Kentucky, in 8:08 $\frac{3}{4}$, 8:03; track very muddy. On Saturday, 8th, 4 mile race, Lecompte beat Lexington in two straight heats, 7:26, 7:38 $\frac{3}{4}$, fastest time ever made. 5th, cloudy, warm. 10th, river on a stand at foot of levee. 12th, cholera disappearing at Trasmond Landry's; ground in bad order by rain and cold winds; corn looks bad; plant up well, ratoons also; corn looks yellow. 15th, cloudy, cool; cold weather for season; crop backward; thermometer 50 in shade. 17th, cold, clear. 20th, cholera on some plantations in Iberville parish. 26th, molasses sold in Lafourche at 4 cents per gallon on plantation, fair sugar $2\frac{3}{4}$ to $3\frac{3}{8}$. 28th, light frost.

1855.

April 2, clear, warm; sold some sugar at 6 cents, and 50 barrels molasses at 26 cents; plant cane coming out; ratoons backward. 4th, river rising; drift passing; want rain. 8th, river went up 5 feet, and is now falling. Lexington beat Lecompte in the great race in 7:23 $\frac{3}{4}$. 15th, fair sugar, $4\frac{3}{4}$; molasses, 26 in town; corn, \$1.10 a bushel; pork, \$16 per barrel. 20th, very dry; want rain much. 24th, weather very warm for season; corn good; plant also; ratoons coming out since a few days. 27th, fair sugar, $5\frac{1}{2}$. 29th, want rain very much; one light rain in forty days; cane and corn suffering; river low.

1856.

April 1, cloudy, cool; want rain; river goes down 4 feet; plant cane coming out very well. 4th, no rain since 30 days; ratoons not up at all. 22d, ratoons not up at all. 25th, plant good. 29th, rain enough.

1857.

April 1, good rain; crop very fine. 3d, cold, clear. 13th, frost; cane cut down to ground; corn all killed; crop looks very bad. 18th, plant sickly, some dying; cane no more advanced than on the 11th of March. 19th, clear, cold. 23d, frost and ice; cane all cut down again, some dying; crop looks miserable; want rain very much. 28th, light frost. 29th, cloudy, warm.

1858.

April 1, cloudy. 5th, plant not up well in some parts of field, in fact not up at all; corn very fine. 8th, river rising fast; breaks in levee over in Mississippi; crevasse near New Orleans, on opposite side. 13th, light frost. 20th, corn 2 feet high; ratoons too thick in many places; river on a stand; want rain. 24th, light frost; crop turned yellow by cold and dry weather. 28th, light frost.

1859.

April 1, cloudy, warm; river rising slowly, at Vicksburg is 10 inches above high-water mark; ratoons begin to come out. 3d, cloudy and cool; cold weather for season; plant up well. 6th, light frost. 12th, crop backward as compared with last year's; want rain. 17th, light frost; light frost on 18th and 19th. 26th,

pork, \$17; sugar, 6 to 6¼; molasses, 32; cotton, 11½ to 12. 27th, river is now within 3 inches of last year's mark; some cane and corn cut down by frost on 23d.

1860.

April 1, clear, dry; river gone down 4 feet; crop wants rain; looks very bad; ratoons not coming up; sugar gone down, is at 7¼. 9th, no rain in forty-two days. 11th, plant cane fair; ratoons thin; corn very good. 17th, had good rain, first since fifty days; ratoons coming out since the rain. 30th, cool.

The Future of the Rice Market.

Talmage in a recent circular gives some interesting data bearing upon the future of the rice market, and especially concerning the rice shipped from far Burmah, etc., to Europe, from January 1 to date, during the last eleven years.

The figures given are for bags 2 cwt., or one-tenth of a long ton, and the whole movement can be thrown into long tons by cutting off one figure. The figures are as follows:

Year.	Arrived.	Afloat.	Total.
1888	893,400	704,952	1,598,352
1889	797,768	490,016	1,387,784
1890	579,416	470,440	1,049,856
1891	828,248	579,000	1,407,248
1892	628,832	638,760	1,267,592
1893	737,432	581,672	1,319,104
1894	637,496	267,568	905,064
1895	1,091,488	498,144	1,589,632
1896	562,256	267,160	829,416
1897	953,016	559,728	1,512,744
1898	399,640	193,400	593,040

From these figures it will be seen that the movement of rice from the East to Europe this year has been but little over one-third of what was done during the same period last year. The famine in India and the scarcity of rice in Japan seem to have done their work, as evidenced in the diminished movement.

From these data we should infer that the rice markets of Europe and America would certainly remain strong until a very material change occurs in the statistical interior. Immense quantities of rice will be produced in Louisiana in 1898, because of the remunerative prices realized for a year or two past, and the present statistical situation in Europe would warrant our rice planters in expecting remunerative prices again for the crop of 1898.

Mr. J. M. Supple and Mrs. Supple, of Bayou Goula, La., were at the St. Charles Hotel on Thursday.

Mr. B. H. Pring, of the fine Oneida plantation in St. James parish, was in the city on one of his customary visits a few days ago.

Mr. Earl Barnett, of Shadyside, was in the city on a visit a few days ago.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: We had another nice little rain Tuesday night. It was "just splendid," what there was of it, but there was not enough of it; and, what is still more of a drawback, the temperature lowered after the precipitation instead of rising as we would like it to do. The mercury got down below 60 deg. Wednesday night, and although the sun is shining brilliantly this morning, a cool northerly wind prevails, which keeps the mercury depressed a dozen degrees more than is reasonable. This condition is retarding the growth of vegetation materially, and all who are interested in the sprouting cane crop are anxious to see more rain and higher temperatures.

The river creeps steadily upward, and stands this morning at 25.6 feet above extreme low water mark, which is .6 of a foot higher than the nominal danger line at Donaldsonville. There is no real danger in such a stage, however, and with such fine big levees as now confine the waters of the river and Bayou Lafourche, in this parish, even last year's extraordinary flood would be far from causing the apprehension and concern it did then. Happily, there is no prospect that 1897's top-notch record will be equaled or even approximated this season, and everybody regards the fact with pleasure. To-day's official reading of the gauge at Donaldsonville is just four feet below that of the same date last year. Local Observer Park has not receded from his prediction that 28 feet will be the maximum of the present freshet, and that leaves a margin of 4.85 feet on the safe side of the 1897 flood line.

There is little of interest to report from the plantations and no appreciable change from the conditions cited in last week's Ascension letter.

The committee having in charge the preparations for the "Planters' ball," held its first session Wednesday afternoon, with Chairman F. B. Lemann presiding, and fixed upon Wednesday, May 11, as the date for the entertainment. Although the sentiment of the members of the "Abspa," as expressed at the meeting of the 5th inst., was favorable to fixing the date for the ball before that of the annual dinner (May 3), the committee properly decided, after due deliberation, that the intervening time was too brief to allow the ladies sufficient opportunity to prepare for the event as elaborately as they usually like to do, hence it is that the dance will take place the week after the dining. Both events are already exciting no little interest in society circles, and there is general gratification over the action of the A. B. S. P. A. in reviving these entertainments, which were formerly conspicuous events in the social annals of

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The cool spell of last week brought us two frosts, which, however, were imperceptible close to the river, and

even in the interior of the parish they were too light to inflict severe damage. Corn and cane looked a little droopy for several days, but are doing well now. There was a nice rain Tuesday night. The cane is improving, and a number of planters report their spring plant to be better than they expected. In passing through fields, however, one can notice a good many vacant spots along the rows. The stubbles are coming out in splendid shape, and a good acreage of second year's stubbles will be cultivated. In fact, they are so fine everywhere that it looks like destruction to plough them out for corn land.

Mr. Thomas Tircuit, of the Irion plantation, near Plaquemine, reports that worms have destroyed a good part of his corn by cutting the roots of the young stalk, and that he had to replant. We have noticed, too, that Messrs. Barrow & Le Blanc and the J. Supple's Sons Planting Company, Limited, have had to replant some.

Mr. Lusignan N. Folse, of Whitecastle, is moving things at Texas. Owing to bad seed cane, the planting reached only 250 acres where 800 acres were expected, but the cane is showing a fine stand, and the stubbles, of which there are 200 first year's and 100 second year's, promise a full crop. Mr. Folse will put in centrifugals this year, and will make his mixer sufficiently large so as to accommodate a strike from the vacuum pan which he hopes to put in another season. Mr. Folse believes in good drainage, and is having a large canal dug, which will make Texas one of the best drained places in the parish.

One of the mills for the Allemania plantation of Mr. G. B. Reuss has been received. The other will come later on from the Fulton Iron Works.

Mr. Mason T. Carter, of Regina, but formerly of Natchitoches parish, has rented a part of the Bay Farm plantation from the Citizens Bank and will plant it in cotton.

The friends of Hon. James A. Ware will be sorry to learn that he has been confined to his bed for several days. He was reported better Wednesday.

Mr. John William Supple, of Bayou Goula, one of our best and most energetic young planters, and vice president of the J. Supple's Sons Planting Company, Limited, was married Wednesday to Miss Lydia Mary Trahan, daughter of Mr. Geolfrid Trahan, of the Aloysia plantation, and a charming and accomplished lady. Mr and Mrs. Supple will take up their abode at the Catherine plantation, where the groom has lately built a neat little home.

Another happy wedding celebrated in this parish this week was that of Mr. Frank Stunts, the promising young chemist of Cinclare, to Miss Louise Sharp, daughter of Mr. J. W. Sharp, of Chenango plantation.

The river since March 20, when it stood 13.5, has risen 13.57 feet, and continues to rise steadily.

The number of packages of freight received one day last week at Plaquemine by boats from the West was 1400, and not 140. The error was manifest, for the receipt of the latter number would not attract attention. IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: From a cultivating standpoint this has been one of the best weeks of the season. With the exception of a light sprinkle Monday night no rain has fallen and plantation work has, therefore, been uninterrupted. Field operations are being pushed forward vigorously on all the plantations, the evident determination being to make up as fast as possible the time lost earlier in the year when the incessant rains so seriously retarded plantation work.

Reports from every section of the parish are, on the whole, quite encouraging. Both plant and stubble are coming out nicely and very promising. The cane, however, is not growing as rapidly as it should, as the weather remains unseasonably cool, thus preventing rapid germination. For instance, this (Thursday) morning the thermometer registered scant 50 deg. With the advent of warmer weather, which may reasonably be expected in a few days, the cane will grow more rapidly and our planters will then know more about their crops than now.

On several plantations preparations are being made to put in the improvements of which mention has from time to time been made in this correspondence.

Mr. A. W. Norman, the efficient manager of Smithfield, is already devising plans to have transported to the factory the new mill and appurtenances, which are expected to arrive here in the near future. The transportation of heavy machinery by land is always a difficult task, but in this parish—that is, between the central and upper portions—the difficulty is increased by several ramps which cross the road at various points.

Cross-ties for the tram road on Poplar Grove are being received and put in position. The construction of this road is a matter of vital importance to the tonnage growers in the neighborhood, and its completion will be hailed with joy on all sides.

The opinion seems to be growing among close observers that we shall escape dangerously high water this spring.

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The weather of last week was not favorable altogether, judged by a standpoint of agricultural needs. The rains were robbed of much of their value by the cool winds that caused the ground to become crusty and hard. Last Friday morning the presence of ice in exposed situations came as a surprise to those who saw it. It formed only where there was a very thin skim of water, and in exposed localities. The thermometer did not indicate the ice point, and little or no damage was done.

To-night is cloudy and indications point to rain before morning. A good warm rain would do much good, not alone to the fields, but to the gardens and cisterns that begin to need rain badly. Much of the plant cane would be benefited by a good shower, as the crust is

hard and the tender shoots seem to have difficulty in piercing the crust. A rain would also greatly help the corn, particularly that planted late, and the stubble would also be the better for more moisture.

I fear that the stand of plant cane will not be up to expectations, as to the eye of the planter there at least at the present seem to be too many gaps to be agreeable. However, there are many shoots just showing, and if the cane suckers well, perhaps a fair stand will be obtained on some spots that now seem to be bare, and where stand is very skippy.

The sprouted condition of the cane, as well as the unfavorable weather after it was planted, are perhaps the reasons for the thin stand. This last season seems to have been in its result favorable to those who advocate the putting down of the seed cane at a late date, as that put down early sprouted more than the last seed put down. Now, whether this rule is one that can be safely followed every year, or whether it was due to the warm weather of the winter just passed is one for experts to determine, a question that your scribe does not feel capable of passing upon. Oakley is putting in about \$10,000 worth of improvements, John H. Murphy, Esq., having the erection and construction of a new burner on this model place. Mr. Malhot speaks enthusiastically of the fall plant, but like others is not altogether satisfied with his spring cane. The complaint as to this is not confined to any particular neighborhood. Mr. Edward Pike, a member of the police jury from the Attakapas canal, says he has some spring plant that he is willing to compare with any in the parish, and Foley has a stretch on the public road that is hard to duplicate any season. All are well up with their work—in fact seem to be, if anything, ahead of the season. The stubble shows the effect of the cool weather and has not grown as rapidly as we had reason to hope that it would. Much of it has been fertilized, and a good rain would doubtless give it a decided push in the right direction. A drive out to Bayou Corne showed that the spirit of agricultural enterprise in the shape of rice culture had struck this section. The fear of high water being done away with, all of this fertile section will be cultivated, and the crops of cane that will be raised on these comparatively fresh lands will astonish the natives. Tramways to get the product of these lands to the mills, and fair prices, will send the value of these tracts way up, and a set of thrifty small farmers will make money in the cultivation and sale of cane by the ton. Before the war (we do not mean the Cuban unpleasantness) many of these places were in a state of thrift and large crops were raised annually, but the war, and then the overflows, put an effectual stop to the cultivation of cane. The time is evidently drawing near when they will once more be in a high state of cultivation and their former prosperity will be excelled.

The upward tendency of the sugar market is a cause of congratulation to those who still have sugar for sale, but the number is few.

Westfield will add to its steam plant and will otherwise improve so as to keep up its

end of the log when the manufacturing season begins.

Mr. Edward P. Munson has commenced work on his residence on Glenwood, and Edward Godchaux, of Elm Hall, is also putting up a modern residence.

That of Mr. Honore Dugas presents a very attractive appearance from the Lafourche and will be a comfortable and commodious home.

The whistle of the new boat, the Liberty, shows that there will be some fun in the steamboat line, as opposition always is interesting except to the immediate parties. "Competition is the life of trade."

MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Although the weather has been favorable for the rapid advancement of field work, yet it has been somewhat detrimental to the growth of crops, more through the effects of low temperature, particularly at night, than from want of moisture in the soil. Two mornings light frosts were visible in exposed places, which checked vegetation without doing any material injury. Fall plantings generally present a yellow appearance, and require heat and humidity before they can assume a healthy look. The early corn, where the land is not impoverished and was well prepared prior to planting, retains a healthy appearance and promises well. From day to day the plant cane acres are improving, but not as rapidly as the ratoons. Some planters think the stubble crop is 100 per cent. better than at this time last year.

Whether there will be an average stand of plant cane remains to be seen. Many begin to realize that a heavy original stand is not necessary to secure a large tonnage yield if too much earth is not left on the canes to check or prevent tillering or suckering, a quality inherent in the plant, and are generally taken advantage of elsewhere to a greater extent than in Louisiana.

On some places there is an abundance of labor, and on others there is a noted deficiency, where there is an adequate supply, field work is well advanced. Scraping plant cane, digging the stubble and fertilizing and moulding the canes can be seen. In some instances the corn areas have been replanted, and at the beginning of the week some planters found it too dry to plant corn where the land was rough.

Since early morning a slow rain has been falling; but the indication are that it will cease before the clouds are saturated.

The tests which have been and will be made in this country will disclose the fact that an immense area is adapted to beet culture. The industry being in its infancy in this country it can not be reasonably expected that over 12½ per cent. of sugar will be had here as in some parts of Europe for some time to come, as the culture and manurial treatment of the soils must comply with the requirements of the plant before superior results can be attained. The development of the industry may be slow for a time, but that the cane sugar producers

will have to compete with the beet sugars is the inevitable. Instead of preparing to meet the coming rivalry many are exhausting their fields by growing cane after cane, instead of rotating with a leguminous crop.

At Belle Farm of Mr. C. W. Bocage, a new cane shed is to be erected, and a Whitney Iron Works' mill, with Corliss engine, is to be added to the milling plant. Messrs. Dupont & Jollet have purchased the drainage plant of Woodlawn from Mr. C. A. Maginnis, to be erected on their Orange Grove place, Bayou Black.

Wednesday of last week, cold for the season; Thursday, light frost and clear; Friday, frost and bright sunshine; Saturday, fair; Sunday, a lovely day and warmer; Monday, a heavy fog and clear later; Tuesday, fair in the morning and cloudy in the afternoon, and Wednesday morning showers.

The official weather report for the week from Schriever is as follows:

	Temperature.	Sunshine	Rainfall.
April 4.....	77.0	55.0	50
" 5.....	81.0	51.0	100
" 6.....	59.0	41.0	100
" 7.....	59.0	45.0	100
" 8.....	64.0	37.0	100
" 9.....	75.0	40.0	100
" 10.....	81.0	40.0	100
	71.0	44.0	93
			.53

TERREBONNE.

Vermillion.

[Special Correspondence.]

Editor Louisiana Planter: The weather for the past week has been very unfavorable for general crops. For several days the thermometer stood at about 55 deg., sometimes running up to 60, and then falling to 50. Corn was materially damaged and cane received a marked setback. It is very red, but seems to be growing a little. The stand is very good and with favorable weather from now on it will soon overcome the effects of the cold weather. Fruits of all kinds are thought to be injured, but not totally destroyed. The rice and cotton crops are not far enough advanced to be caught by the cold wave, though there is considerable rice up and looking as well as could be expected. Rice planting is the general order of the day now in the western part of the parish and reports are to the effect that preparations for a crop are very favorably advanced for the season and that the acreage will be fully as large as was reported.

The rice firm of Hall & Slutz, which has been mentioned in these columns before as being interested in building a large irrigating canal twelve miles south of Abbeville, decided a few days ago to convert their partnership into a chartered institution and take in others with them, and with this resolution firmly fixed they on last Saturday, the 9th, organized and chartered the Hall-Slutz Irrigating Company, Limited, with headquarters at Abbeville, La. The capital stock of this company is fixed at \$12,000, with an authorized increase to \$50,000, and the intentions and purposes of the company are to build and operate irrigating canals, pumping plants, and to plant and cultivate rice in the parish of Vermillion, and

to build and maintain warehouses for the storage of the same. The incorporators of the company are W. G. Hall and T. W. Slutz, of Abbeville; A. E. Hall and C. H. Slutz, of New Iberia, and W. H. Lovegrove and John J. Brown, of New Orleans. This company will complete the large canal already started by Hall & Slutz in time to irrigate early rice in reach of said canal.

Mr. O. M. Nilson, president of the Vermillion Sugar Company, arrived in Abbeville yesterday afternoon, the 11th. Mr. Nilson has been in Bay St. Louis for several weeks organizing and putting in working shape a bank at that place. He has now returned to Vermillion to look after the proposed large refinery at Perry, one and a half miles south of Abbeville on the Vermillion river. The company proposes to begin work on this plant not later than the first of July, and will finish the building this fall, but will not put in the machinery, as they do not expect to be ready to handle any part of the present crop. This company has one of the finest locations in the State of Louisiana for a central refinery, and when erected nothing but success can attend it.

Mr. Desire Delcambre, the owner and proprietor of the town of Delcambre on the line between Iberia and Vermillion parishes, was in Abbeville to-day, the 12th, and called at the office of THE PLANTER correspondent. Mr. Delcambre is a large sugar planter and the most influential man in his section of the country. He informed THE PLANTER representative that there would be about 1200 acres of cane to ship from his station alone this season, which at a very conservative estimate of 15 tons per acre would be 18,000 tons. Mr. Delcambre shipped last season about \$300 tons all told.

The civil term of the District Court is in session here now. It was the regular time for the criminal term, but owing to the fact that the district attorney was away attending the Constitutional Convention the judge adjourned the criminal term *sine die*. P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: It might as well be said, levy aside, that the cotton planters of this and the neighboring parishes were blown in last week by the frost from the outside. Frost in April is something unusual for this climate. However, it came, and visibly so, to the sorrow of the farmers, on the mornings of the 7th and 8th, destroying hundreds of acres of young cotton. Some of it was large and had been chopped out to a stand.

But our farmer friends did not bewail their sad mishap. Like men used to losses, they set to work at once with men and teams to ploughing and replanting again to cotton, hoping for favorable weather to bring the replanted crop up as early as possible.

On some places young corn was so seriously injured and the stand so seriously affected by last week's cold snap that it has had to be ploughed out and planted over for obtaining a better and more uniform stand.

Strange as it is to relate, the frost seems to have jumped over some cuts of cotton, dropping on the next, killing the young plants down to the surface, and it appeared that corn suffered somewhat in the same manner. Especially so was this the case with both corn and cotton planted on the back cuts and consequent lower lands.

Since the cold wave has passed off I have made it a point to investigate and learn to what extent, if any, the fruit crop has suffered by the frost. As far as can be learned I think it safe to say that the young and tender fruit on the trees has not, to all appearances, been in the least touched by the frost, but later developments may discover some faulty fruit.

So far as the cane crop is concerned, while very much retarded in growth through the cold and disagreeable weather, there is no fear at present but that a good stand will be obtained in the end, as the weather improves, with the days and nights growing warmer and with an occasional summer shower to penetrate the soil, nourishing the roots of the young cane plants.

Late advices from Cotton Port indicate that the citizens in that place are fully alive to their interests and are determined to leave no stone unturned until they succeed in building a central sugar factory in the growing town of Cotton Port. Not considering the lands set aside for factory purposes and an increased acreage planted to cane the citizens and planting community have subscribed something like \$20,000 in cash toward the building of the Cotton Port sugar factory. Among other improvements now going up in Cotton Port is the building by Mr. J. B. D. Roy of a large cotton gin. Mr. Roy purchased his machinery in New Orleans.

Information of a reliable nature has during the past day reached THE PLANTER's scribe to the effect that Mr. Geo. W. Sentell, proprietor the Leinster plantation, has purchased a vacuum pan and fixtures which he intends having erected in the Leinster sugar factory this season. From what can be learned at the present time it seems that all branches of agricultural and farm pursuits are somehow stimulated and hopeful for big results this year.

The cane planters in this parish are not, as far as can be ascertained, using, nor are they going to use to any considerable extent, commercial fertilizers this spring and summer for cane. Not a few of them prefer resting their sole hope on the ever-reliable cow-pea, which is, all things considered, the most reliable sugar producer of all the many fertilizers now found on the markets, and, as some of our most successful cane growers have said to THE PLANTER's scribe, to make canes to produce sugar, feed the soil with pease, and then good drainage is all that is required outside of intelligent cultivation. ERIN.

Capt. W. H. Norwood, of the Lower Coast, was registered at the Royal on Saturday.

Mr. L. F. Suthon, of Houma, was a guest of the Royal one day last week.

Mr. R. R. Barrow, a prominent planter of Terrebonne parish, was a guest of the Grunewald one day last week.

FOREIGN LETTERS.

Berlin.

(Special Correspondence.)

BERLIN, March 26, 1898.

Editor Louisiana Planter: There was last week again a great variation in the climatic conditions, and although some slight improvement has been witnessed, the disagreeable and unfavorable meteorological phenomena have been in the decided majority. Rain and snow storms together, with sharp, piercing winds, are reported from different quarters, and as the temperature sank to a very low point, it can not be denied that spring was ushered in in an exceedingly strange manner. In some ways, however, the weather has been better than in the last few weeks; the rains have been less abundant and the intermissions between them of a longer duration, so that aided by the wind the drying off of the fields made quicker progress than heretofore, and in different sections the field work could be begun, but only provisionally, for in the last few days in most places it was again interrupted. It thus looks quite as if the winter would make up by quantity what it left undone in quality. The weather outside of Germany has been partly better, partly worse than in this country. Amongst the former there was Austria, France and Holland; amongst the latter Belgium and Russia. The work achieved so far is only of a preparatory character; this also in the more advanced countries. There is to be sure nowhere an early sowing, which is generally considered as a favorable beginning. But sometimes this rule does not come true. It has been found that seed too early confided to the soil did not come up at all, or in so defective a manner that the fields had to be turned over and resown, the cause of it being the coldness of the soil, whilst it frequently and erroneously is sought in the bad quality of the seed, an opinion which has led already to litigation between the buyer and the seller of the beet seed used. Late sowings are therefore under certain circumstances preferable, but, as a matter of course, they don't furnish any guarantee against failures as mentioned above, for when the summer is unfavorable—that is, cold and wet—the condition of the soil can be, later on, as unfit for sowings as earlier in the year. Much, of course, depends in this respect on the nature of the soil, and every farmer should know what he can, under different meteorological conditions, expect of it. Any way, a good deal of attention must be paid to this subject, for, as a German rural proverb says: "A good coming up is half the crop."

The contracts for beets of next crop are still here and there somewhat backward, but farmers have of late become more tractable on account of the unfavorable turn the sugar prices have taken. On the other hand, the situation is for the manufacturer not of a nature to tempt him to engage in an increased production, and this view is prevailing in almost all beet countries except in Russia, where a great many new factories are said to be projected. The price now paid in Germany for beets can be placed in the vicinity of 1.70 marks for 100 kilogr. or about \$4 for the long ton.

News is received here that the Treasury Department of the United States has been induced to reduce the rates of the countervailing duty on Dutch sugars to be levied on their entrance in America. There should be also revision of the rates of countervailing duty fixed against German sugars, for the German producer does not receive or keep the full amount of the bounty which the law nominally grants to him, for he gets a bounty only for such sugars as are comprised in the figure of the contingent allowed to be produced, and the amount of the bounty is furthermore curtailed by the so-called working tax, which is the higher the more a factory is producing. Of these deductions the American government has hitherto taken no notice, but the German sugar manufacturers demand that our government should do all in its power to come also to an understanding with the United States.

In Norway attempts have been made to plant beets, to which it seems the success achieved by this industry in Sweden has served as example. The experiments made have been fairly successful, and it is not impossible that in the near future Norway will count among the beet sugar producing countries.

Sugar producers increase on a large scale, but what about sugar eaters? The last French statistics for February give a queer answer to this question, inasmuch as they show that only upward of 20,000 tons have been consumed in that country, as against 43,371 tons February, 1897, and for the first two months in 1897 the French consumption amounted only to 45,796 tons, as against 78,066 tons a year ago. This, your esteemed readers will admit, is a very poor showing for a country like France, which is famous for her almost inexhaustible wealth. No doubt sugar is taxed much too high in France, as has been pointed out on different occasions in these letters, but nevertheless it is not probable that this is the reason of this appalling decrease of consumption which is taking place instead of an increase. The amount of the bounties added to the original tax tends to enhance the price of the commodity. However, the latter has been higher before, and the consumption did not sink to such a low figure.

Are the French satisfied with half the sweets they consumed some years ago? This is hardly possible, but how else explain the fact of this alarming falling off of sugar consumption in France? If there is any explanation it consists, in my opinion, in increased use of surrogates, such as glucose, starch sugar, saccharin, etc. Perhaps these stuffs would be beaten out of the field if sugar were unburdened from its high duties, for high taxes ever have been the incentive of adulteration and smuggling. The possible consequences and dangers of all kinds are not shunned, on account of the high gain, possibly, obtained by them. In Germany the saccharin question is not decided yet. In the commission which is charged with the consideration of the matter a new bill has been submitted providing for the forbidding of the sale or the offering for sale of saccharin, and making it a transgression of our adulteration

law if saccharin is mixed with any kind of nourishments and beverages, such as wine, beer, etc. But it should be further provided that only drug stores shall be permitted to sell the substance, so that it be restricted to medical use only.

The markets have, during last week, not undergone any notable change. The dullness prevailing some weeks since has been intensified by advices of complications arising between Spain and the United States, and on the other hand, the increase of arrivals and stocks and small figure of meltings caused considerable uneasiness. Prices, however, have not further receded. Yesterday they slightly recovered, so that actual 88 per cent. sugars close at Magdeburg 5 pfennigs higher than a week ago, their quotation being 9.90 to 9.15 marks, whilst delivery March is worth at Hamburg 9.025 f. o. b. Business in refined was a little more active, but prices have been barely maintained.

ROBERT HENNIG.

Demerara.

We learn from a source the reliability of which we have no reason to question that Mr. Quintin Hogg, whose name has been familiar to all of us in connection with the sugar industry for more than a quarter of a century, has decided to sever his connection with the colony, that is, in a proprietary sense. He has arranged to transfer all his interest in the sugar estates, without reserve, and also in La Penitence business to his partner, Mr. Campbell. This decision has not been arrived at because Mr. Hogg is tired of growing sugar, for, as our readers are aware, he is chairman of a new company for the establishing of a large sugar factory in America. Mr. Campbell, who some time ago had very little faith in the future of our sugar industry, is now of a different opinion, and is giving practical proof of the faith that is in him.—*Demerara Argosy, March 19.*

Chino, California.

Crop conditions are no more encouraging. It is now becoming a settled conviction that the season's rainfall is completed, and the farmers and all others are making their arrangements looking to light crops and a season of economy. Hay promises to be very short, and in many places can not be cut. In other places a light crop will be harvested. The beet outlook places many farmers in a quandary as to whether the prospects will justify their planting of the seed. Sugar beets, however, have the characteristic of withstanding drought well, after they are once rooted, and where they can be gotten started may give a better crop than is now anticipated.—*Champion, April 8.*

Eddy, New Mexico.

Preparation of ground and planting of beet seed is progressing steadily. The sugar company is working vigorously on the land west of town, and is also preparing a 160-acre tract near Florence—ploughing, making ditches, etc. Contracts with farmers are being secured in a manner very satisfactory to the factory management. The farmers of the lower valley

will increase their acreage by one-half over that of last year, and are now coming in for seed for planting. The Florence growers in particular are increasing their plantings. The seed received by the company has been tested by Professor Skeats, and shows very satisfactory results. Every indication as regards the beet crop for 1898 in the Pecos Valley is hopeful. Contrasted with the conditions in California, all those interested and concerned have reason to rejoice.—*Argus*, April 8.

How to Make Cane Sugar Pay.

Cane cultivation in the West Indies is doomed from ignorance. When sugar was £20 to £30 a ton even half a ton to the acre paid. Every yard of available land was planted—good, indifferent and bad. Prices are now so much lower, although the expense of cultivation is much the same; was told the other day by a manager of a large estate he could not grow sugar under £7 a ton. He included the poor shallow land and his old ratoons—from which he could not possibly get more than half a ton to the acre. Then, when he counted his acres and his tons of sugar, the produce fell short of one ton to the acre. Another manager told me he did not make more than three-quarters of a ton to the acre all around. This state of things is bound to bring grief. My advice is: Take your best land, if only forty acres in a hundred, thoroughly cultivate and apply cattle manure, and you will get a good return—say two tons to two and one-half, and even three tons, of sugar to the acre. Good land will not cost more to cultivate than poor land. Five pounds is the outside expense. Now take the forty acres at £5 per acre, total expense £200. The produce at two tons only per acre, at £7 a ton, amount to £360; balance on forty acres, £360. Why, then, all this cry about estates not paying?

The remedy lies at our doors. Give up the bad land and confine your whole attention to the good land for canes. Let other crops that require only four to five months to mature be introduced. As the old, big prices for sugar are gone, so now give up the old system which flourished under those high prices. Change the system; work the good land. Several pieces of land in St. Kitts give from three to four tons of sugar to the acre. Such land will laugh at bounty-fed sugar. The old system is worked out; introduce a new one.—*Planter*, in *London Produce World*, Jamaica, January 4.

Hon. Henry McCall, of Evan Hall plantation, was in town on Thursday and attended the regular monthly meeting of the Louisiana Sugar Planters' Association.

Mr. Carroll Barton, of the Magnolia plantation, near Paincourtville, was a visitor to the city during the past week and stopped at the St. Charles.

Mr. A. H. Gay, of St. Louis plantation, in Iberville parish, was a Sunday visitor at the St. Charles. He was accompanied by Mrs. Gay.

Mr. R. A. Simms, of Ramos, La., a man who has contributed some valuable devices to the sugar industry, was a guest of one of our leading hotels a few days ago.

Making Concrete in the Multiple Effects.

[A paper by Mr. L. M. SONIAT, read before the Louisiana Sugar Planters' Association, April 14 1898.]

Gentlemen of the Louisiana Sugar Planters' Association:

I have been requested by our worthy president to write a paper on concrete as made in Cedar Grove sugar house during last grinding in the Lillie triple effect. As you are aware the effect was not intended for that purpose and an experiment was made to ascertain whether concrete could be made in it. The juice was taken into the third effect and run backward, being discharged from the first effect in the shape of concrete. This was done for the purpose of raising the temperature to a sufficient point. The masse culte was too thick to allow the use of the spindle, but it was estimated to be 46 deg. Baumé. The proper point for discharging is when it turns whitish, showing the grain of sugar. The vacuum was in the first effect about twenty pounds; second, twenty-three pounds; third, twenty-seven and a half pounds. The concrete hardened promptly as soon as it cooled off.

On the table is a sample of the concrete, of which the analysis, made carefully by my chemist, Mr. Altolaguerre, a pupil of Dr. Stubbs, is as follows:

Moisture.....	7.88
Total solids.....	92.15
Sucrose.....	76.40
Glucose.....	5.71
Purity.....	82.90
Glucose ratio.....	7.47
Solids not sugar.....	10.04

This analysis was made on March 29, after concrete had stood three months and absorbed much moisture, and, in fact, Mr. Altolaguerre told me that the absorption of moisture when open to the air is such that it showed a difference while on the scale, but that was due, I suppose, to its being pulverized. During such a short experiment no data could be obtained as to economy of production, but we can safely assume that the heat used in the pan would be more than sufficient to make the concrete. There would, therefore, be a saving in steam in running centrifugals for firsts or seconds, reboiling seconds, molasses and hot room. In labor the saving would be even greater, as most all expert labor would be done away with.

In apparatus we would dispense with tanks, pans, centrifugals and hot room.

The above facts seem to me to have a great significance. What is the greatest drawback to the extension of cane culture? Not the lack of capital, of lands, or of willing hands. What is it, then? The cost of transportation. Whenever the distance is too great to be reached by private tramways, the freight on cane on public railroads is so great that it amounts to about 25 per cent. of the value of the cane, absorbing a great proportion of the profit of both the cane grower and the purchaser.

If the making of concrete is found to be practicable and the cost of a plant to be about the half of an ordinary country refinery, such plants could be erected all over the country.

They need not be large or very expensive;

they would consist of mill, improved bagasse burner, clarifiers, multiple effects and concretor. With a good burner, bagasse could produce enough steam to do all the work, and as the clarification need not be so fine, the only expert man needed in the sugar house would be the engineer. Concrete could be sold on its polarization, and weighing only about 10 per cent. of the weight of the cane, could find a market all over the sugar district or in the refineries of the trust. The large planters of the State, whose refineries have cost hundreds of thousands of dollars, would welcome a new product which would keep for months and which would allow them to utilize their machinery for half of the year instead of barely three months, as at present. When the business would be reduced to a system contractors would no doubt be able to erect a complete plant at figures which we now consider impossible, and capitalists be found to furnish the money when they would see a prospect of those plants being, as it were, on a permanent base.

I may add for the benefit of those interested that in the *Sugar Cane* of 1872, January and February, will be found interesting facts about concrete made in Jamaica at that time.

The Manufacture of Concrete in the Multiple Effect.

[A paper by Mr. S. MORRIS LILLIE, read before the Louisiana Sugar Planters' Association, April 14, 1898.]

Mr. President and Gentlemen: The paper I am about to read was written in response to an invitation to prepare a paper on the subject assigned for the consideration of this meeting, viz.: "The Manufacture of Concrete in the Multiple Effect."

By "concrete" I understand to be meant the sugar obtained by evaporating clarified (or even not clarified) cane juice to a consistency which, when allowed to become cold, becomes a hard and apparently dry crystalline mass of sugar, containing all the constituents of the juice which had not been separated by clarification.

In so far as I am informed such "concrete" has never been made in any multiple effect other than what is known as the "Lillie Multiple Effect," and my remarks must therefore relate to that apparatus and to the concrete made by it.

But I may first premise that beginning in the early '70s, and to some slight extent perhaps continuing unto this day, large quantities of concrete were made in almost all the sugar districts of the world by what was known as Fryer's Concretor. This device may be described in a general way as a long, shallow iron tray, some fifty feet long in instance, inclined downward from one end to the other, and heated from below by a fire at the upper end and by the products of combustion from the same, which flowed along a flue having the tray for its top. The clarified juice was delivered into the tray at its upper end and by means of partition extending partially across the tray alternately from one side and the other, was made to flow in a zigzag course down the tray, suffering rapid evaporation in

its course, until finally, in a very few minutes, it passed from the lower end of the tray concentrated to 30 deg. Baumé perhaps, or higher. The further concentration down to the concreting point was effected in a revolving cylinder, through which heated air was passed by a fan. Inside the cylinder was fitted with sheet metal diaphragms, over which, as the cylinder revolved, the syrup flowed in thin layers and was presented in very extended surfaces to the evaporative action of the heated air. From the cylinder the finished mass flowed into suitable receptacles, in which it cooled to a solid concrete.

Fryer's concretor was intended to and did supersede to a great extent the evaporation of juices by the open kettle process, and on the estates adopting it muscovado sugar and molasses were superseded by the one product, concrete, which contained all the solid constituents of the clarified cane juice. The yield of concrete for a given quantity of juice appears to have been about 1.4 times that of muscovado sugar, and the money return to the producer was greater also. At all events, these were the results obtained by the Colonial Company during the years 1870, 1871, 1872, 1873 and 1874, on some of whose estates in Trinidad and Demerara muscovado sugar and molasses was made, while on others Fryer's concrete was made.

The results are given in the *Sugar Cane*, issue of February 1, 1875, in tabular form, as follows:

QUANTITY OF CANE JUICE USED TO MAKE ONE HUNDRED WEIGHT OF

	Sugar sold.	Concrete sold.
1870.....	99½	70
1871.....	96	72
1872.....	101½	68½
1873.....	98.77	67.41
1874.....	106¾	76¾
Average, gallons.....	100	71
Equals.....	1.41	1.00

NET PROCEEDS OF ONE HUNDRED GALLONS OF CANE JUICE IN

	Sugar and Molasses sold. s. d.	Concrete sold. s. d.
1870.....	19 0	19 0
1871.....	23 8	23 6
1872.....	23 4	20 6
1873.....	19 2	23 1½
1874.....	16 6	19 10
Average.....	20 4	23 0

From these tables we see that, taking the average of the five years, the yield of concrete was 1.4 that of the muscovado sugar per 100 gallons of the juice, and that the money received for the concrete obtained from 100 gallons of juice was 13 per cent. greater than that received from the muscovados and molasses obtained from an equal quantity of juice.

But Fryer's concretor has been unable to maintain itself against the greater economy and desirability of the modern multiple-effect system of evaporation in conjunction with other improvements in the art of manufacturing sugar from the cane, and the products of the sugar estates are again almost universally sugar (of various grades) and molasses.

I will now return to the subject of the evening, from this digression which was made to recall the fact that concrete had formerly been extensively made, and that its manufacture by the open fire, by Fryer's concretor, proved to be more profitable than the muscovado sugar and molasses made by the open kettle process, all of which by analogy suggests that the manufacture of concrete by the multiple effect may prove to the planter to be more profitable than the sugar and molasses he now makes from his cane juice through the agency of the multiple effect, vacuum pan, etc.

As I have already stated, I know of no concrete having been made by any other multiple effect than the Lillie Automatic, and in this apparatus it was first experimentally made in the spring of 1897, on the Esperanza estate, island of Trinidad.

During the last grinding season in Louisiana two lots of concrete, of some 200 pounds each, were made with the Lillie triple effect in the Leighton sugar house, of Maj. C. Lagarde; and, later, two different lots were made with Lillie triple effect in the sugar house of Mr. Leonce M. Soniat. The making of these lots of concrete was exceedingly simple. The Lillie multiple effects, as most of you are aware, I presume, are constructed so that the juice may be sent through the effects in the ordinary direction, viz.: into the hottest effect and away concentrated from the coolest effect, or vice versa it may be sent into the coolest effect and away concentrated from the hottest effect. The former I term "working forward," and the latter "working backward." The change from one way to the other is easily made inside of two minutes, and is frequently done in the cases of multiple effects used on solutions which deposit on the tubes incrustations, for it has been found very effective in preventing the formation of scale, which fact is very conclusively shown in the case of the triple effect erected in the National Sugar Refinery, at Yonkers, N. Y. This was one of the first Lillie triple effects built of the present type, and had not the provision for backward working. As they were somewhat troubled with scale, the arrangement for backward working, which I had in the meantime devised, was applied to this triple effect, the effect of which is stated in a paragraph contained in a letter from the manager of the refinery, which I now quote:

"Scale was formerly quite abundant and tenacious on the tubes of the third effect. We boiled acidulated water once a week and did some scraping to cleanse them, but this was not always successful, and, of course, it was troublesome. Since we have changed the charging system, however, scale has practically disappeared. We change the direction of running every two days—that is, we run two days forward, and then two days backward. This method we have followed now for about three months, and during that time we have not used any acids, nor done any scraping, and the tubes are practically clean."

It has also been found very effective on the plantations, as planters are informed who may have read the printed matter sent to them regarding this apparatus.

When the Lillie multiple effect is worked backward the syrups may be sent out at very high density, owing to the fact that the high temperature in the first effect maintains them fluid at high densities, and also to the fact that the mechanical circulation forces them to flow properly over the evaporating tubes, and to make concrete with it, it is only necessary when working backward to shut down the discharge until the syrup flowing out shows white with sugar. When this shows the syrup is dense enough to form solid, apparently dry concrete, like the samples which are here for inspection this evening. The two lots of concrete made in Major Lagarde's sugar house, and the two lots made in the sugar house of Mr. Soniat were all made in this way, and as an evidence of the success of these experiments I will quote from a letter received from Major Lagarde, as follows:

"The experiment you made in the effects, making 150 to 200 pounds of concrete, was a perfect success. It was clear, uniform and very solid as soon as it cooled, and apparently ready for the market. If any inducements were offered by the refineries, I think it would pay the planters to make concrete, as they could dispense with everything behind the effects, including cooperage."

And also from a letter from Mr. Soniat, in which he wrote:

"As to concrete I will say that the short experiment you made in my effect was a perfect success, and that with a concretor attached to it the whole work of the sugar house would be finished right there, dispensing with the pan, centrifugals, hot room and possibly cooperage. The question whether it would pay planters to make concrete would depend entirely on the inducements which would be offered by refineries."

Major Lagarde sent samples of the concrete made in his sugar house to Mr. Daniel Thompson, Calumet plantation, and to Prof. William C. Stubbs, director of the Louisiana Sugar Experiment Station. From these gentlemen he received replies which read:

CALUMET PLANTATION, Dec. 28, 1897.

Mr. C. Lagarde, P. O. Box No. 53, Thibodaux:

DEAR SIR—Your letter of December 20 has been here some days, but the sample of concrete therein mentioned was only received last night. In answer to your inquiry regarding the latter, would say that it is as fine a specimen of its kind as I have ever seen—in color the lightest, and therefore, other things equal, the most valuable to the refiners. I have no doubt Mr. Lillie's apparatus will turn out concrete successfully. This article will, however, find but one purchaser, viz., the sugar refiner, and for want of competitive bidding will probably sell below its intrinsic value. It is a class of goods, also, which refiners have never cared to melt, for the reason that, still containing the molasses, it is extremely detrimental to their char (bone-black), and requires the use of large quantities of the latter for the manufacture of standard granulated.

I very much question whether you will be able to market the material to advantage, as compared with the centrifugal sugars which you have been in the habit of making, notwithstanding it can be produced at a much smaller cost for manufacture.

Yours truly,
(Signed) DANIEL THOMPSON.

AUDUBON PLANTATION,
NEW ORLEANS, La., December 28, 1897, }

Major C. Lagarde, Thibodaux:

DEAR SIR—Your letter with sample of concrete was received several days ago. The concrete was analyzed with a great deal of interest, and the sample sent, on account of its clear, uniform appearance and solidity of character, very closely examined.

I send you the analysis, and wish to say, in sending it to you, that I see no reason why this product of our sugar houses should not be substituted for our ordinary grain sugar and sent directly to the refineries. In fact, this is a far more desirable product to turn out and to handle than the low grade brown sugar with accompanying molasses.

I congratulate you upon the success which has been made, and if sugar refiners will encourage the manufacture of this product by purchasing it at a fair price, I am quite sure it will revolutionize to a certain extent the sugar industry of this State.

Wishing you and your sons and family generally a pleasant Christmas and prosperous new year, I am very truly yours,

(Signed) WM. C. STUBBS, Director.

A sample of one of the lots of concrete made with Major Lagarde's triple effect was analyzed and examined in one of the Northern sugar refineries. The analysis was as follows:

Polarization	77.8
Water	8.47
Invert sugar	8.16
Ash	2.73
Undetermined	3.34
	100.00

Calculated coefficient of purity, 84.2.

Experiments with syrups made from the sample were reported as showing them to filter and decolorize well, and that the concrete was in excellent condition for refining purposes.

A sample of one of the lots of concrete made by Mr. Soniat's triple effect was also analyzed and examined at the same refinery, and resulted in a similar report as to its condition for refining, and gave the analysis as follows:

Sugar	79.00
Invert sugar	5.40
Water	6.42
Ash	3.26
Undetermined	5.92
	100.00

Coefficient of purity 84.4

While upon the matter of the quality of the concrete I will refer to the statement in the letter from Mr. Thompson which I have read, regarding concrete, viz.: that "it is a class of goods, also, which refiners have never cared to melt, for the reason that, still containing the molasses, it is extremely detrimental to their char (bone-black), and requires the use of large quantities of the latter for the manufacture of standard granulated." This, I am able to say, is an error. The refiners would be glad to have this material to refine, and do not anticipate any trouble to their char from it, as I was told by a high authority among refiners to whom I submitted Mr. Thompson's letter. It would give their refineries more refining to do, but that is what they were built for. The fact is this concrete in its making is subjected to heat for so short a time

in the Lillie multiple effect that it takes on little or no color during the operation, and is in good condition for the bone-black to act upon.

The density of the concrete syrup as it left the first effect was, I judge, about 48 deg. Baumé, at a temperature of about 185 deg. Fahr. It was too thick to be readily gauged by the hydrometer, and no readings were taken by the latter. I had anticipated difficulty in determining the proper density at which to draw off the syrup for concrete, and I was agreeably surprised when I found that the change in color due to the separation of the sugar in the syrup formed a very easily noticed indication of the density having reached the proper point. When this point was reached, the concrete syrup was run out into pails, buckets, tubs and cans, in fact drawn into whatever was at hand for the purpose, in which it cooled and formed concrete. With very slight changes any of the Lillie multiple effects in plantation sugar houses could be adapted to the continuous production of concrete, but of course they could not be expected to handle as much juice when concentrating it up to the concreting point as when thickening it to only 27 or 28 deg. Baumé. To adapt any of these multiple effects to make concrete, and to handle as much juice as they now do when thickening it merely to syrup, I should add another effect to the apparatus in which live steam would be used for evaporating, and the vapors from which would be used in perhaps the second effect in the case of a triple, and in this effect the syrup coming from the original effects would be brought to the concreting point.

In a colored drawing, which we have here this evening, is shown a four-effect apparatus, of which the three effects toward the left are a fair representation of the triple effect in Mr. Soniat's sugar house, while the remaining effect, viz.: the one on the right, represents a concreting effect, which would be supplied with live steam under pressure of 15 to 20 pounds perhaps, and whose vapor would pass through the main shown with a valve in it, into the vapor main leading from the first effect into the second of the triple effect. In the manufacture of concrete in this apparatus the juice would flow first to the triple effect, entering through the feed pipe "A," and after passing through the triple effect, either forward or backward, depending upon whether the dark valves or the light valves were open, would pass into the concreting effect, and from it continuously as concrete syrup through the discharge pipe "D," as regulated by the hand valve "V" in the same, and it may be said that, owing to the automatic operation of the Lillie apparatus, all regulation of the flow of juice into and through the effects, and as concrete syrup away from the concreting effect, would be all controlled by this one-hand valve "V," that is, if it were found that the concrete syrup was coming away somewhat thin this valve would be closed slightly, when the syrup would come away slower and thicker, while, on the contrary, if it were coming away too thick, a slight opening of the valve would cause it to come away faster and thinner. On

account of the high temperature at which the concrete syrup leaves the apparatus, and of the danger of its taking on color if allowed to remain at that temperature for any length of time after leaving the apparatus, I would provide, for working on a large scale, a simple cooling device, by which the concrete syrup might be cooled to a comparatively low temperature, before passing into the receptacles in which it was to set into concrete.

The receptacles in which the concrete is allowed to cool may be of various descriptions. The sugar wagons of a house might be used for this purpose, and to lessen the size of the blocks of concrete they might be provided with removable cross partitions, which would divide each wagon into four compartments, making four blocks of concrete, which would not be too heavy for convenient handling. Or it might be run into old barrels, or other cheap packages, in which it would solidify and in which it could be shipped to the refiner. A good deal of the concrete might be shipped direct to the refinery in closed cars as mere blocks without any covering whatever. The yield of this concrete, as compared with the present yield in commercial sugars would be, I presume, about one and four-tenths times greater, that is, the clarified cane juice which would yield 100 pounds of commercial sugars would yield about 140 pounds of concrete. Through the kindness of Mr. Wilbray Thompson I have had at my disposal the sugar house data of Calumet plantation for several years. Taking these data for the season 1894-95 I have been able to estimate quite closely. I think, what would have been the yield of concrete had it been made exclusively at Calumet during that season, and I find that there would have been 138.4 pounds of concrete made for every 100 pounds of sugars (firsts, seconds and thirds). It will be remembered that in the case of Fryer's concretor, referred to before in this paper, the yield was 1.4 that of the muscovado sugars obtained from the same quantity of juice.

The exclusive manufacture of concrete in this manner would much simplify the operation in the plantation sugar house. In the words of Major Lagarde: "It would dispense with everything behind the effects, including cooperage;" or, to quote Mr. Soniat: "The whole work of the sugar house would be finished right there, dispensing with the pan, centrifugals, hot room and possibly cooperage." In other words, no syrup tanks, no vacuum pan and adjuncts, no centrifugals, no handling and reboiling of syrup, and further, no molasses, for this all goes into the concrete, and the molasses problem is passed along to the refiner, who would be the purchaser of concrete. Another convenience would reside in the fact that within the same twenty-four hours that the juice was expressed from the cane, all the product would be ready for the market.

Would it pay the planters to make concrete? I think it would. Did they merely receive the same net money profit that they now derive from the manufacture of sugar and molasses, there would still be the great care and annoyance saved in the operation of their sugar

houses. But they should, and doubtless would, obtain in addition a considerable increase in the net money profit from their campaign.

All the work done in plantation sugar houses, after the multiple effect, can be done much better and cheaper in sugar refineries which are especially fitted up for refining purposes, and which work night and day more or less continuously instead of but two, or at the most three months in the year. One no inconsiderable saving would be the coal used in the plantation sugar houses, for with no steam used but for defecation and for the Lillie multiple effect and concretor, bagasse alone would supply all the steam they would need. The cost, therefore, of passing from cane juice to refined sugar would be materially less were concrete made by planters and the refining left for the refiners to do. If the price paid for concrete was such as to give to the planter any portion of the savings effected, he would obtain a greater net profit from his operations than he now does, besides being saved a large part of the care and annoyance his sugar house now gives him.

In the letters I have read, written by Major Lagarde and Mr. Soniat, in whose sugar houses concrete was made, you will observe that no question is raised as to the practicability of making concrete with the Lillie Multiple Effect. The doubt they do have relates to the price refiners would be willing to pay for it, or, as Mr. Soniat writes:

"The question whether it would pay planters to make concrete would depend entirely on the inducements which would be offered by refineries." It is the same with the letters written by Mr. Thompson and Dr. Stubbs, and I have found that this is the question in the minds of all planters with whom I have conversed on the subject. They all fully appreciate the beauty of the process and the advantages it offers in "cutting the sugar house in two," in dispensing with the molasses, in doing away with the fuel other than bagasse, and with cooperage, but they fear that a fair price might not be given for concrete by refiners.

In respect to this I may say that from my conversations with refiners, "Independent" as well as "Trust," I am satisfied that they would much like to have this concrete extensively produced, for the reason that it would give them more refining to do. One independent refiner to whom a sample of concrete was sent, said to me: "I should like to have lots of this material." I am also convinced that the sugar refiners will meet the planters in a business-like manner and pay a fair price for concrete. But apart from what refiners may say, it seems to me that it is apparent from the nature of things this fair price would be paid for concrete. In the first place the number of independent refineries is constantly increasing—two large ones are now in the process of erection in Brooklyn—and the competition that will exist between refineries for this concrete will tend to give it approximately its intrinsic value. In the second place, should there be no competition between refiners for the purchase of concrete, it would still be to their interest to pay such a price for concrete as to encourage its manufacture.

To the sugar refiner the partial refining on plantations means competition, in so far as the partially refined product goes into direct consumption, and it means a loss of work for his refineries, which would, if had, render less frequent the stoppages, total or partial, which now occur. Were this partial refining on the plantations of other countries as well as of Louisiana abandoned, and the sugar delivered to the refiners no more refined than it occurs in the cane juice—i. e., were the dry substance in the cane juice delivered to the refiners as concrete, the existing refineries in the United States, if run continuously, would hardly be equal to the task of supplying the demand for refined sugar in this country. But there is another consideration which, it appears to me, will in the future bind the refiners and the cane sugar producers together in a common interest, and that is the competition of beet sugar. This industry is, undoubtedly, to rapidly spread in this country. Beet sugar factories will spring up in all sections of the country and make sugar for direct consumption and supply the needs of their immediate neighborhoods, with the exception of such districts as can be more cheaply supplied with cane sugar. This will be a menace both to the cane sugar grower and to the refiner, and the common safety of the two will lie in cheapening the production of refined cane sugar to the greatest possible extent, so that as extensive a market as possible may be preserved from the encroachments of beet sugar. As before pointed out in this paper, the cost of passing from cane juice to refined sugar would be materially lessened by the manufacture of concrete on the plantations, and leaving all the refining to the refiners, and it would permit of refined cane sugar being put on the market at the lowest possible price in competition with beet sugar. It would, therefore, appear that in the future this procedure will be, undoubtedly, to the advantage of both the planter and the sugar refiner, and that, recognizing this fact, the two will meet on grounds as to price which will be to the benefit of the planter as well as to the refiner.

The Foundrymen's Association.

THE LOUISIANA PLANTER has been invited to attend the seventy-seventh meeting of this association at the Manufacturers' Club, Philadelphia, April 6. Among the various interesting matters to have been discussed was "*The Mending of a Broken Steel Roll*." It is claimed that this has recently been done, and that the roll is now as strong as ever. How about broken cane mill rolls? They are not subjected to such strains as iron mill rolls, and perhaps sugar planters may have an interest in the new process.

Talmage on the Rice Market.

The situation in rice presents only favorable features, in marked contrast with other com-

modities, including cereals, wherein during the week there has been discouragement, depression and decline. The volume of business is up to any former period the current year and per consequence the market is firm, with upward tendency, as importations have practically ceased and no supplies of liberal character in Java or Japan possible before latter half April. With the falling away in receipts there is beginning to be an appreciable dearth of nice selections in Java, the demand for which has greatly enlarged by reason of these styles enlisting the attention and being generally adopted by those who have hitherto confined their patronage exclusively to Japan. Advices from the South note quickened movement at unchanged prices; opportunities for investment still present themselves in prime to choice Carolina and ordinary to fair Louisiana; the aforesaid relatively cheaper than equal grades in foreign. In New Orleans there is a restricted supply of cleaned offering, as mills have closed and little probability of any general reopening until new crop, late August. Cables from abroad note continuation of former temper and tendency. Business is restricted, because of limited offerings; no inconsiderable number of orders being banked up for later execution. Not for many years has the attention of the trade been concentrated so intensely and longingly upon the new crop and early arrivals are thus assured of prompt disposition at full figures.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 58,420 barrels; sales, 57,770 barrels; steady demand; chief call on prime to choice, which are cheaper in price than equal grades in the imported sorts.

Talmage, New Orleans, telegraphs Louisiana crop movement to date: Receipts, rough, inclusive of amount carried over, 506,085 sacks; last year, 565,420 sacks; sales, cleaned (est.), 106,692 barrels; last year, 102,405 barrels. Increased inquiry and under light offering, because of mills having stopped pounding, market very strong with upward tendency.

The Florida Velvet Bean.

[Special Correspondence.]

Editor Louisiana Planter: Up to two years ago this bean was grown here in a limited way, mainly as a trellis shade, but afterward it became recognized as invaluable for all kinds of stock as a forage, and a phenomenal fertilizer for orange and other fruit trees, and for the soil as well, until it is now grown in large quantities.

There is nothing yet discovered, that is, all in all, so valuable a crop as this, for farmers to raise. It being an air plant it will do well in most any kind of soil, in any of the States, North or South, that will grow corn, and no fertilizing is necessary. The forage—the foliage and vine—coming from this bean is a marvel and a wonder.

Planting in rows four feet apart will produce a solid mass of vine and foliage, nearly up to your waist, covering the ground completely, and yielding leaf, vine and fruit, four to five tons to the acre, and of dry beans twenty to

thirty bushels. Beside the vine being a valuable fertilizer, forage, mulch and shade, the question will be asked, is it also prolific in fruit? The answer is, yes; emphatically so. From the hill the vines run out in all directions, like the watermelon, ten to twenty feet.

It commences to fruit in the hill in clusters, like the raisin grape; thence along the entire length of the vines, at intervals of ten to twenty inches, pods in clusters of from two to twenty appear. Therefore the fruitage must be immense.

For twenty years this bean has had a home in Florida, and has been known among the people as "the climber." In good soil it will climb from fifty to sixty feet, blooming and fruiting all the way up, affording a beautiful and lovely sight to look upon.

To drill an acre will take sixteen quarts of seed; to plant an acre in rows four feet apart each way, about twelve quarts. In good soil this acre will produce four to five tons of green forage and fifteen to seventeen hundred pounds of beans. I speak from practical knowledge, as I last season harvested nineteen acres of as fine a crop as ever grew.

Plant seed in spring same time as corn, and cultivate same as you would corn until vine fills the row, then lay by for the season. When bean is ripe in fall pick it, then turn mass of dry vine and leaves under for fertilizer, and from this your soil is immensely benefited. You can turn stock on to bean if you wish, or cut vines up at hill and carry out, which would be advisable. If planted in orange grove or orchard keep five feet or more away from trees, as vine is a rampant grower and climber and will cause you bother. Experience has shown that it is better to drill than to plant in hills, as by drilling you get a better stand on the group and that is important. The bean, ground up hulls and all, makes a fine fertilizer for pine-apples, orange and other fruit trees, as well as for all vegetable growth. Stock of all kinds like it as well as the green forage early in the season, and all do specially well on it. Every living thing on the farm will eat the green forage and dry bean with greediness. The dry bean is fit for table use. The question is often asked if this new comer—the Florida velvet bean—will do well in any other section of our country except Florida. I answer by saying there is no earthly reason why it will not, as it is not tropical and will do well wherever corn will grow. After having made a thorough test of it I have come to the conclusion that, as fertilizer, forage, feed, mulch, shade, a prolific bearer of fruit and upbuilder of the soil this bean has no rival.

As a porch and trellis shade, with its beautiful dark green foliage and its long, pendant, down-hanging purple bloom, it is truly lovely.

The analysis of this bean shows: Nitrogen, 54 per cent.; crude protein, 19; fat, 6; fibre, 8, and moisture, 12.

E. A. WILSON.

Orlando, Florida.

A Model Irrigating Plant.

We recently had the pleasure of visiting and inspecting the splendid rice farm and irrigating plant belonging to Mr. James E. Frazier, located about four miles from Lake Charles

and on English Bayou. By invitation the editor and his wife were guests of Mr. and Mrs. Frazier at their elegant home in the suburbs of Lake Charles, and in the afternoon we were driven out to the rice farm. Mr. Frazier owns something near 500 acres of land in a body, with a frontage of almost a mile on English Bayou, a stream which connects with the Calcasieu river. On the bank of the bayou, just at the bend, and where the depth is at least twenty-five feet, he is erecting his pumping plant. This consists of a Morris pump, 18 inches, with a 20-inch discharge, 18-foot lift, with a capacity for throwing 10,000 gallons of water per minute. The pump will be operated by a Morris double vertical engine, 100 horse-power, without belts, the shafts for the pump connecting direct with the engine. Steam is furnished by a boiler of 100 horse-power. The source of water supply is never failing, consisting of the bayou, with an average depth clear to the river of twenty feet. As long as there is water in the Calcasieu river (and that may be safely called permanent) there will be an abundance of water for this plant.

From the pumping plant the main canal starts, running in a northerly direction the greater part of the distance and then turning to the eastward. For three miles and with a width of 60 feet, it extends over as level and pretty a piece of rice prairie as the eye ever rested upon, and is capable of reaching on for at least six miles to the noted Iowa prairie, thus putting under this canal at least 6000 more acres. The present plant contemplates the building of two miles of lateral canals, making total mileage of canals for this year, under contract to be built, of five miles. Cook & Montgomery, of Jennings, have the contract for building the canal and have a force of eighteen men at work which will soon be increased to twice that number. The present mileage of canals will irrigate 6000 acres. This year there will be about 1000 acres put in, 300 of which is on Mr. Frazier's own land, the remainder being land for which he furnishes water. The canals will be completed by the middle of May, by which time it is expected to have the machinery installed, and the entire plant be ready for operation. As that is at least a month or longer earlier than water for the rice will be necessary, there will be no waiting for water, with consequent damage to the rice.

This is a very substantial plant, everything being of the best. The machinery is considered the best that can be secured, while the canals are being made by scraper work, which is considered vastly better than the machine work and is more expensive. Every scraper load of dirt that goes on the levee is tramped and packed down by the horse pulling the next one as they are driven over it, which advantage can not be claimed for the machine work.

The writer has known Mr. Frazier for a number of years, he having come from the same locality in Illinois as we did, and have ever known him to be successful in all his undertakings, and his present intentions and project but still further shows his excellent judgment and business ability. There is not a more ideal location for a plant of this kind,

and for its profitable growth, than the one he has selected. With almost a monopoly of bayou frontage, he is tributary to perhaps the largest and finest body of rice prairie that can be found in this part of the State. It has been pronounced so by one of the best and most successful rice planters of the State, Mr. C. A. Lowry, proprietor of Live Oak plantation of 2000 acres, from which he sold last year over \$50,000 worth of rice. He has been over the land and inspected its possibilities, and speaks very highly indeed of it.

Mr. Frazier is on the eve of a great success with his work, and has the best wishes of a host of friends. The sooner more of such plants are put in, that much sooner will Lake Charles, Westlake and the entire Southwest Louisiana prosper.—*Westlake Herald*.

Evaporation in Triple Effects.

Editor Louisiana Planter: The most important requirement of a triple effect is said to be good circulation of the steam or vapor, or, in other words, the transmission of heat depends upon the velocity of the steam or vapor as it circulates among the tubes of the drum or chamber of the effect. Another important essential is the rapid circulation of the juice. It is also important that the condensed water in the drum should have the same temperature at the discharge as at the supply.

Now, if these requirements are really necessary, we are sorry to say that they are not often complied with. Take, for instance, the old-style standard triple effect, and we find, in most instances, that there is no circulation of the steam or vapor in the drums; no circulation of the juice in the effect, and as the condensed water from the drums is taken either to the hot well or the vacuum pump direct, there can not be the same temperature at the discharge as at the supply.

Quite a number of inventions have been made to overcome these difficulties, but so far as I can learn, very few of them have been introduced here. To improve the circulation of the steam or vapor, iron plates have been fitted in the drums to cause the steam to pass around the tubes. There is also the zigzag spirals, as they are called, which cause the vapor to pass around among the tubes in a spiral form, and are said to increase the efficiency of the triple effect 10 to 20 per cent. There is, however, another method which is said to be still more effective, and that is to have two vapor inlet pipes in place of one. This method is said to give such astonishing results that we wonder why these styles of effects are not in general use. There is still another method of increasing the circulation of the vapor in the drums, and that is by placing the ammonia pipe in such a position as to be on the opposite side to the steam inlet, or where the ammonia gas is supposed to be found. In regard to the gas, there can be no question that it retards evaporation and in time quite ruins the copper tubes if it is not removed. It has also been proved that there are other gases found in the bottom of the drums, such as nitrogen and carbonic acid gas, which are said to interfere with the evaporation, and in the best makes of triple effects are always removed.

Many people wonder how these gases get into the drums of the effects, and there are others that doubt if there are any there at all; but there can be no doubt of their presence, and if not removed they soon perforate the pipes or tubes; besides having an injurious effect on the evaporation.

There have been quite a number of devices, or inventions made to improve the circulation of the juice, and which have been very successful, not only in increasing the efficiency of the effects, but in keeping the tubes clear at the same time. The inventions of Foster & Campbell, Chapman and Keller, seem to have met with the best success in this direction, and it is strange that so few of these inventions are to be found anywhere. In the Foster & Campbell apparatus, the steam or vapor enters the drum on two sides, in place of one, the usual practice, and it is this simple change which has wrought such a wondrous change in this type of triple effect. In the Chapman apparatus the improvement is derived from adopting the siphon both for conveying the juice from one effect to the other, as well as the water of condensation from one drum to the other.

In operation the juice from the first effect passes through the siphon and enters the bottom of the next effect, and so on to the last effect, and it is said to wonderfully increase the circulation of the juice. The water of condensation acts in a similar manner, only it passes through the siphon to the bottom of the drum, and from the last drum it drains through the siphon to the vacuum pump.

This method may not appear to be of much benefit, but as the temperature of the water is higher than the temperature of the drum in which it enters, it can not possibly do any harm; indeed, it is more than possible that it parts with its latent heat, until it becomes of the same temperature as the vapor in the drum.

Kaller's device, or spirals and screws, as it is called, is an apparatus fitted or worked in the tubes by some means, and it is said to clean the tubes and increase the circulation of the juice to such an extent as to effect a gain of 12 to 20 per cent. Some gain seems also to be derived from keeping the juice very low in the effects; but when this is done it is also necessary to devise some means to prevent entrainment. For rapid circulation of the juice, those triple effects with large tubes of eighteen inches diameter, placed in the centre of the drums, seem to be hard to beat. In this style of effect the juice flows up through the small tubes, like small fountains and fall back again down through the large centre tubes, keeping up a rapid and a constant circulation all the time the apparatus is at work. I think that there is no question about the circulation of the juice being an aid to the evaporation, or at least we have experienced a decided improvement in evaporation simply by carrying the inlet juice pipes down to the bottom of the cells, and have got a better circulation of the steam by fitting the ammonia pipe in the drum in the opposite side from the inlet vapor pipe.

Now, while we admit the force of the foregoing remarks on circulation, we think that it

is none the less necessary to see that the drums are kept perfectly free from gases and the water of condensation. Indeed, we have often found far more trouble to arise from these causes than from the former. There are numerous devices for the purpose of freeing the drums of the water of condensation, and to do it without cooling the drums in any way; but so far as my experience goes, I know of nothing better for the purpose than the siphon for the first drum and possibly for the other two, providing sufficient depth can be got for the purpose. We find that there is quite a number of Marsh pumps in use for this purpose, but we fail to see that they have any advantage over the siphon. I have not as yet made any attempt to remove the gases from the bottom of the drums, because we have not seen any injurious consequences arising from their presence, but possibly some of your readers may have had some experience in this direction, and if so, we would be highly pleased to hear of the results of the experiment.

GEO. OSBORNE.

Kukaiua, Hawaii, H. I., March 1, 1898.

The European Sugar Bounties.

The following remarks on the bounty question and the Russian system with regard to sugar are from the *Weekly Price List* of Mr. C. Czarnikow, dated the 24th March:

"The postponement of the sugar conference in Brussels until after the French elections, by which time the beet sowings will have been completed, renders it unlikely that any alteration made will affect next crop. From information received, it seems, however, probable that the Austrian bounty will in any case be reduced, as the action of their syndicate secures for the factories greater benefits from the higher prices paid by the home trade than were derived from the increase of the government grants on exports made during the last few years. In France it is uncertain whether the increased tax on refined will cover the direct export bounty; should this not be the case the government may decide to reduce the direct export bounty, which would have the effect of stimulating shipments to United Kingdom prior to the alteration. The German, Austrian and Belgian factories are apparently prepared to abolish bounties, provided the French do likewise, but it is said that the French industry can not compete successfully without premiums against the German, which is more favorably situated as to yield, etc. A solution might be found if France could be persuaded to adopt the Russian system of home allotments granted to each separate factory, leaving the surplus production to take care of itself. In England generally a direct countervailing duty is not altogether looked upon favorably, but a penal clause in the convention, which would have the same effect, is no doubt acceptable to all parties, and, of course, in actual practice would probably never require to be enforced.

"The Russian system adapted to France would be about as follows: If the beet production is 800,000 tons, the French colonial production 100,000 tons and the total consumption 500,000 tons, then a beet or cane factory, pro-

ducing hitherto 4500 tons, would be entitled to sell for French consumption five-ninths = 2500 tons, and would have to export or hold over into another season any excess. The prices for the French consumer would probably be comparatively high, and they would keep alive the weaker establishments, whilst the stronger ones would continue exporting, even at cost price, to reduce expenses. The higher price in France would not constitute a bounty, because fabricants, though willing hitherto to let the exporter claim the government drawback, would not like to put their hands into their own individual pockets to hand over to the foreign consumer profits made at home. There would, of course, be attempts to keep up with the neighboring factory, and some of the stronger would encroach upon the domain of the weaker, but with proper laws (fixed minimum allotments, instead of the German system) any fabricant able to make £5000 on 2500 tons would not be likely to prefer making 5000 tons at £1000 profit. The bounty would have disappeared with the collective distribution; the individual producer would have objections, just as a foreign government would object to the English treasury encashing foreign bounties and building warships with it. In order to avoid sending home sugar backward and forward the home allotments would be transferred by bonds or export obligations, recognized by the syndicate, which bonds a factory near Paris would give out, and which would be taken up by a factory near Calais or in Guadeloupe. The latter would encash the price which the Paris factory might be willing to pay in order to sell its excess of, say, 2000 tons for home use, and get it exported by the Calais factory instead. On the above example, Calais would then only have 500 tons for home use and 4000 tons for export. Should prices in France (owing to increased consumption) rise beyond a certain point, the syndicate would have to release a further quantity for home use. The system being Russian, it might commend itself to French ideas."

Mr. H. A. Chapin returned on Friday from the recent trip he took through the sugar parishes in the interest of the National Cane Shredder, and registered at the St. Charles Hotel.

Mr. H. C. Boas, of St. Mary, a prominent planter of that parish, was in the city on a visit a few days ago and registered at the Hotel Royal.

Mr. E. P. Munson, of Assumption parish, where he has large planting interests, was a visitor to New Orleans during the past week and registered at the St. Charles Hotel.

Mr. H. N. Pharr, son of Capt. J. N. Pharr, of St. Mary parish, was among the recent visitors to the city and put up at the St. Charles, as is his usual custom.

Mr. D. A. Walton, son of that well-known gentleman, Col. C. J. Walton, of Louisville, Ky., was a guest of the St. Charles Hotel on Wednesday.

Mr. Tony Sobral, a popular resident of the parish of St. James, was in the city on a visit a few days ago and registered at the Grunewald.

APRIL 16.

WEEKLY MARKET REPORT.

1898.

SUGAR.	April 9.	April 11.	April 12.	April 13.	April 14.	April 15.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	31 3/4 @ —	31 3/4 @ —	31 3/4 @ —	31 3/4 @ —	31 3/4 @ —	31 3/4 @ —	— @ —	Quiet.
Strict Prime	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	27 1/2 @ 2 1/2	
Prime	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	23 1/2 @ 2 1/2	
Fully Fair	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	21 1/2 @ 2 1/2	
Good Fair	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	21 1/2 @ 2 1/2	
Fair	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	21 1/2 @ 2 1/2	
Good Common	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	21 1/2 @ 2 1/2	
Common	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	31 1/4 @ 3 3/4	21 1/2 @ 2 1/2	
Inferior	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ —	Steady.
Centrifugal.								
Plant'n Granulated	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	— @ —	
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 1/2 @ —	
Choice White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Off White	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	— @ —	
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	4 1/4 @ —	— @ 3 1/2	
Prime Yellow	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	3 1/2 @ 3 3/4	Dull.
Good Yellow	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	3 1/4 @ 3 3/4	
Seconds	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy	— @ 14	— @ 14	— @ 14	12 @ 13	12 @ 13	12 @ 13	— @ —	Dull.
Choice	— @ 13	— @ 13	— @ 13	12 @ 13	12 @ 13	12 @ 13	— @ 9	
Strict Prime	— @ 12	— @ 12	— @ 12	— @ 11	— @ 11	— @ 11	— @ 9	
Good Prime	— @ 11	— @ 11	— @ 11	— @ 10	— @ 10	— @ 10	— @ 8	
Prime	— @ 10	— @ 10	— @ 10	— @ 9	— @ 9	— @ 9	— @ 7	
Good Fair	— @ 9	— @ 9	— @ 9	— @ 8	— @ 8	— @ 8	— @ 6	
Fair	— @ 8	— @ 8	— @ 8	— @ 7	— @ 7	— @ 7	— @ 6	
Good Common	— @ 7	— @ 7	— @ 7	— @ 6	— @ 6	— @ 6	— @ 5	
Common	— @ 6	— @ 6	— @ 6	— @ 5	— @ 5	— @ 5	— @ 5	
Inferior	— @ 5	— @ 5	— @ 5	— @ 4	— @ 4	— @ 4	— @ —	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Fair.
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.96 @ —	4.90 @ —	4.90 @ —	4.90 @ —	4.90 @ —	4.90 @ —	4.22 @ —	
Standard A	4.84 @ —	4.78 @ —	4.78 @ —	4.78 @ —	4.78 @ —	4.78 @ —	4.10 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Quiet.
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	Holiday.	Holiday.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	10s. 9d.	Dull.
A. & G. Beet			9s. 1 1/2 d.	9s. 0 3/4 d.	9s. 0 d.	9s. 0 d.	8s. 7 1/2 d.	

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	Strong.
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5.18	— @ 5.18	— @ 5.18	— @ 4 1/2	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Apr. 6	Tons	282,669
At four ports of Great Britain to	Apr. 2	"	77,000
At Havana and Matanzas to	Apr. 6	"	118,800

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APRIL 15, 1898.

	SUGAR		MOLASSES.	
	Hhds.	Barrels.	Barrels.	
Received	164	14,545	909	
Sold	164	16,598	909	

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO APRIL 15, 1898.

	SUGAR		MOLASSES.	
	Hhds.	Barrels.	Barrels.	
Received	22,178	1,876,269	183,110	
Sold	22,178	1,855,902	182,110	
Received same time last year	81,860	1,209,681	216,451	

APRIL 16.

WEEKLY MARKET REPORT.

1898.

RICE.	April 9.	April 11.	April 12.	April 13.	April 14.	April 15.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK.
ROUGH, 50 bbl.....	2 00@4 50	3 00@4 85	3 00@4 85	3 00@4 85	3 00@4 85	3 00@4 55	— @ —	Strong.
CLEAN, Fancy.....	5 1/2@6	5 1/2@6 1/2	5 1/2@6 1/2	5 1/2@6 1/2	5 1/2@6 1/2	5 1/2@6 1/2	5 1/2@6	
Choice.....	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	5 1/2@5 1/2	
Prime.....	4 1/2@5	4 1/2@5 1/2	4 1/2@5 1/2	4 1/2@5 1/2	4 1/2@5 1/2	4 1/2@5 1/2	4 1/2@5	
Good.....	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	
Fair.....	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	4 1/2@4 1/2	Strong.
Ordinary.....	3 1/2@4	3 1/2@4 1/2	3 1/2@4 1/2	3 1/2@4 1/2	3 1/2@4 1/2	3 1/2@4 1/2	3 1/2@4 1/2	
Common.....	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	3 1/2@3 1/2	
Inferior.....	Nominal.	2 1/2@3	2 1/2@3	2 1/2@3	2 1/2@3	2 1/2@3	Nominal.	
No. 2.....	1 1/2@2	2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	2 @2 1/2	
BRAN, 50 ton.....	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	9 50@10 00	
POLISH, 50 ton.....	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	14 00@15 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APR. 15, 1898.

	SACKS ROUGH.	BELS. CLEAN.
Received.....	600	477
Sold.....	1,819	1,786

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO APR.
15, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BELS. CLEAN.
This year.....	451,293	5,018
Last year.....	375,565	9,088

Sugar.

The local sugar market was quiet at the end of the week, with quotations as given in our tabulated statement on opposite page.

Molasses.

No open kettle goods in first hands. Centrifugals dull.

Rice.

The tone of the rough rice market was very strong at the end of the week, and receipts, which were small, were promptly absorbed. Clean was strong and advancing.

The Coast Country of Texas.

There is an extensive area of level land bordering the Gulf of Mexico. The soil is rich, and in course of time will be reclaimed and become one of the best agricultural districts known on this continent. But they must adopt systems of drainage, first open drains, then follow up with under or tile drains. The *Angleton (Texas) Times* says:

"The fact of the business is that our people do not appreciate what thorough and scientific drainage means for this country. Every acre of drained land in Illinois and Indiana is worth three acres of undrained land. In Louisiana, the most productive and prosperous section of the South, immense drainage ditches, which look like creeks, are taken out every few hundred yards, and in some sections small ditches are run every hundred feet. In addition to this expensive levees are necessary to keep out the floods of the Mississippi. To prepare one hundred acres of land for cultivation in this section of Louisiana requires a small fortune, but there seems to be no lack of money for such work, and the miles and miles of plantations under a high state of cultivation shows that the returns on the investment must be satisfactory. The land is no better than that of Brazoria county, which can be prepared

for scientific cultivation for one-quarter the cost, as the drainage here is so much more easily and cheaply secured. Louisiana is most prosperous. All the people who are cultivating the soil are making money, and wealth is rolling in by the millions. Why? Simply because they drain. Without their present and expensive system of drainage their lands would be comparatively worthless, and the throb of their countless steam engines would cease to be heard in the land. Every sugar plantation

looks like a village, and each has a side track from the main line of the railroad running into its sugar house. These same results can be had in Brazoria county for one-quarter the cost, and land enhanced in value from \$10 to \$100 per acre, but not without drainage."—*Draining Journal*.

Col. Lewis S. Clarke, of Lagonda, registered at the St. Charles one day last week.

The Cuban Sugar Crop of 1897-98.

Statement of Exports and Stocks of Sugar March 31, 1898, and same date last year.

Exports.	1897.			1898.		
	Sacks.	Hhds.	Tons.	Sacks.	Hhds.	Tons.
Havana.....	130,469	148		37,383		
Matanzas.....	47,821			149,432		
Cardenas.....	99,715			180,260		
Cienfuegos.....	232,613			328,861		
Sagua.....	13,150			41,440		
Caibarien.....						
Guantanamo.....				1,500		
Cuba.....						
Manzanillo.....	200					
Nuevitas.....						
Gibara.....						
Zaza.....						
Trinidad.....	13,127			27,015		
	537,095	148	74,432	765,891		105,994
Stocks.						
Havana.....	109,406			89,344		
Matanzas.....	126,835			292,539		
Cardenas.....	112,278			251,258		
Cienfuegos.....	61,366			95,470		
Sagua.....	34,186			48,015		
Caibarien.....	4,525			50,533		
Guantanamo.....						
Cuba.....				9,147		
Manzanillo.....						
Nuevitas.....						
Gibara.....						
Zaza.....						
Trinidad.....	9,437			3,515		
	463,033		64,080	840,021		116,253
Local consumption, 3 months.....			138,512			222,247
			10,500			11,300
Stock of old crop, January 1.....			149,012			233,547
			81,960			1,515
Receipts to March 31 at all the ports.....			117,052			232,032

NOTE.—Bags, 310 pounds; hogsheads, 1550 pounds; tons, 2240 pounds.

Havana, March 31, 1898.

JOAQUIN GUMA.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address SUGAR MAKER, care this office. 4-16-98

WANTED—A POSITION AS CLERK OR ASSISTANT OVERSEER, on sugar plantation; can give best of references as to ability and character. Address 500, care PLANTER.

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommends the best in the State. Address J. FRANZ, Eureka, St. Louis county, Mo. 4-6-98

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address Mrs. J. S. DARRACH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. K. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS IN the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98.

WANTED — A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98.

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98.

WANTED—A CARPENTER, WITH LARGE EX-perience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address Box 16, Ponchatoula, La. 3-26-98.

WANTED — PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98.

WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assista it boiler in some large factory. Best of references given. W. B., Box 60, Donaldsonville, La. 3-31-98.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address S. K. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EX-perience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Palmettoville, La. 3-18-98.

WANTED—A POSITION AS CHIEF ENGI-neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES PO-sition at once; has new process of cultivation and clarification; write for full particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED — A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED — EXPERIENCED GERMAN AGRI-culturist, beet sugar culture a specialty, desires position; best references. Address Box 309, Irvington, New Jersey. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Piety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97

WANTED — A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; he best of references. Address EXPERT, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2432 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2620 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT EN-gineer; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louis street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98

WANTED—A GOVERNESS' FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5335 Magazine street, New Orleans, La.

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBER, Central, La. 1-20-98

WANTED—A POSITION AS YARDMAN OR gardener; can furnish reference. Address GOTTLIEB KOELLE, 618 St. Louis street, city. 1-21-98

WANTED—A SOBER AND CAPABLE YOUNG man as assistant overseer on a sugar plantation. References required. McCracken Bros., Eola La. 1-20-98

WANTED—POSITION AS STORE OR BOOK, keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address MAX. P. O. Box 1066, New Orleans. 1-17-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR AS-sistant engineer; has had fourteen years' experience and can furnish first-class references. Address F. O. W., Larcadeville P. O., La. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-18-98

WANTED — A FIRST-CLASS PLANTATION hostler. Address 156, care of this office. 1-11-98

WANTED — BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; At references from former employers. GEO. H. DOUGLASS, Covington, La. 1-11-98

WANTED—POSITION ON SUGAR PLANTA-tion by the year, as carpenter and wheelwright; never drink, and can give good references. Address BOX 73, Baton Rouge, La. 1-11-98

WANTED—A YOUNG MAN WHO CAN GIVE good references wishes to learn some good business; is willing to commence at the bottom and work for promotion. Address A, Box 37, Jackson, La. 1-11-98

WANTED—BY A FIRST-CLASS ENGINEER, position in sugar house as chief; twenty-five years' experience in erecting and operating sugar machinery; will engage by the year at moderate salary. Address ENGINEER 2020, this office. 1-11-98

WANTED—A SITUATION IN A PRIVATE family as general yard man, city or country. Address P. S., 130 N. Franklin street, city. 1-13-98.

FOR SALE CHEAP.

One Reading Iron Works Slide Valve Engine, 25 inches Steam Cylinder by 48 inches stroke.
One Sturtevant High Speed, Vertical Double Cylinder Engine, 4 inch Cylinder by 8 inch stroke.
One McDonald Hydraulic Regulator, complete, Ram 10 inches.
One Shepard Lathe, swing in chuck 21 inches.
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Two Mullen Filters.
One Three-Roller Leeds Mill, 26½ inches Diameter, by 4 ft. long, with Riley Pusher and Engine.
One Three-Roller Niles Mill, 25 inches Diameter, 4 feet long, with Engine.
All the above machinery in first-class condition. Apply to

The Adeline Sugar Factory Co., Ltd.,

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER, A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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AND

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Ascension Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
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Texas Sugar Planters' Association.*

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3 inch.....	14 50	36 20	54 40	72 50
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5 inch.....	23 50	58 75	88 15	117 50
6 inch.....	28 00	70 00	105 00	140 00
7 inch.....	32 50	81 15	121 75	162 50
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Sugar Beet Seed.

Now that the growing of sugar beets and the manufacturing of beet sugar promise to rapidly increase in the United States greater interest than ever is had in the literature of the subject. Mr. Lewis S. Ware, the well-known editor of the *Sugar Beet*, published for many years in Philadelphia, where Mr. Ware stood alone as the advocate of the certain ultimate development of the beet sugar industry in this country, has written a book upon sugar beet seed, which has been published by the Orange Judd Company, of New York, and is a splendid compilation of the data relative to this branch of the beet sugar industry. Increasing interest has been displayed in the production of beet sugar seed of late in Utah and California. Experiments from Utah have been eminently successful, but almost the entire supply of beet seed consumed thus far in this country has been imported from abroad. It has been found that our home-grown seed, however, is of excellent quality and there is no reason why we should not produce all of our beet seed in this country, and to this end Mr. Ware is now laboring with his excellent volume that is before us.

Mr. Ware takes a broad view of his subject, beginning with historical consideration of origin of European varieties, the botanical data concerning the beet and special requirements of sugar beet seed, the races, types and varieties of sugar beets, the selection of beets with a view to seed production, the soils best adapted thereto, together with the fertilizers that are essential to the best results, the selection and sampling of seed, the germination test, the planting of seeds with the preparation before planting and their germination in the soil, special methods for the production of superior seed, their production from leaves, buds and small beets, our home-grown beets with an account of our

American experiments and account of the beet seed industry in France and much other incidental data.

Mr. Ware's book is an encyclopedia of all our present knowledge of this subject and should be in the hands of every one interested in the sugar beet industry. It embodies the results of twenty years' of studies and experience with the subject and in its preparation the author has visited nearly every beet seed farm and similar institution in the world. The book is handsomely illustrated and is published at \$2 net, post-paid to any part of the world, and may be had at this office or from the Orange Judd Company, 52 Lafayette Place, New York.

Feeds and Feeding.

("The eye of the master fattens his cattle.")

Prof. W. Henry, dean of the College of Agriculture and director of the Experiment Station of the University of Wisconsin, has just published a valuable work on FEEDS AND FEEDING, that should attract the attention of every agricultural student and of every stock-raiser. There is probably no State in the Union that has taken as high a position in advanced agricultural research as has the State of Wisconsin. The study and development of the dairy interests alone may be said to have made Wisconsin rich, and the agriculturists of the State must necessarily give great attention to the question of feeding their live stock, and Professor Henry's valuable book now publishing will be found to discuss the whole subject matter from scientific, industrial and economical points of view, in a most exhaustive manner. The conclusions are founded upon a vast store of experience that could never have been acquired in any other way than through the great resources available to Professor Henry in his position as professor of agriculture and director of the Experiment Station. The table of contents covers the botan-

ical consideration of plants, their growth and development into feed for animals. Their mastication, digestion and assimilation. The functions of digestion, respiration and also calorimetry; animal nutrition; the source of muscular energy; composition of animals before and after fattening; the influence of feed on the animal body, methods of calculating rations, etc.

The whole subject matter of feed stuffs is taken up with a discussion of the leading cereals and their by-products; minor cereals, oil-bearing and leguminous seeds and their by-products. Indian corn as a forage plant, the grasses, fresh and cured straw, leguminous plants for green forage and hay; miscellaneous feed stuffs; soiling cattle and preparation of feeding stuffs; the ensilage and fodders; manurial value of feeding stuffs. We then come to the feeding of farm animals, including investigations concerning the horse; feeds for the horse, feed and care of the horse, calf rearing: results of steer feeding trials at the stations; factors in steer feeding; the dairy cow; station tests with feeding stuffs for dairy cows; the influence of feed on milk and of wide or narrow rations. Feed and care of the dairy cow; investigations with sheep and experiments in fattening them and in wool production. The general care of sheep. Investigations with swine and the value of various feeding stuffs for pigs with an account of Danish pig feeding experiments, together with the effect of feed on the carcass of the pig.

Every one interested in farm animals, whether as a breeder or user of live stock or dealing in or fattening them, will find Professor Henry's book an exhaustive treatise on the whole subject matter of feeds and feeding. Copies can be procured at this office for \$2, or may be ordered directly from Prof. W. A. Henry, Madison, Wis.

The Cane Crop.

The past week has witnessed the advent of the long looked for rain, followed by a rising temperature, and this has dispelled such fears as were beginning to be entertained by the planters that the growth of the cane would be materially retarded by the long continued and unseasonable spell of dry weather and cool nights. Vegetation of all kinds has received a

marked impetus, and the gappy stands of spring plant cane are in many cases beginning to put forth indications of improvement, while fall plant and stubble are almost universally reported to be doing finely. Taken as a whole the crop situation promises above the average.

Sugar in Georgia.

[Special Correspondence.]

Editor Louisiana Planter: I had occasion some weeks ago to collate from an account of a visit to the United States, by D. B. Warden, a bit of history relative to the cane and sugar industry as Mr. Warden found it in Louisiana in 1816-1818. To-day I will note for the columns of THE PLANTER Mr. Warden's account, Vol. 2, page 432. Mr. Warden says relative to the cane industry in Georgia at that time:

"The sugar cane is now cultivated along the coast and to a distance of 120 miles in the interior. Further north the frosts, which often take place after several days of considerable warmth, kills the shoots in the spring and the natural fruit when it approaches maturity is apt to burst. The shoots are protected from frost, which sometimes prevails, by covering them with dry grass. It is told that the produce of an acre under good cultivation is from 2000 to 4000 pounds of sugar."

In a foot-note Mr. Warden states that—

"Mr. Butler on 85 acres cultivated by 17 hands, produced 140,000 pounds of sugar and 75 hogsheads of molasses. John McQueen planted 48 acres in cane, average product 20,000 canes per acre, and 5000 canes, the product of one-fourth of an acre, yielded 600 gallons of juice, which, boiled down, made 672 pounds of sugar, and may lose 50 pounds in draining, leaving 622 pounds, or 2488 pounds of sugar per acre."

Mr. Warden credits this foot-note to Walshe's American Register.

Hoping the above facts culled from an authority so reliable will be found of interest as well as instructive when reproduced in the pages of THE PLANTER is my apology for offering them to its readers. ERIN.

Maple Sugar in Wisconsin.

It is estimated that the United States produces about 4000 tons of maple sugar in a year. Michigan, Vermont and Pennsylvania are among the leading States that produce it, and Wisconsin has had quite a reputation until within a few years, in which the devastation of forests had been going on with marked rapidity, doing away with some of the best maple forests that any State could boast of. However, a large quantity is still made and consumed, especially in the southern part of the State.

The season for maple sugar has just closed and it is claimed that it has seldom been so good in ten years. Sometimes the season lasts only ten days, usually beginning about the 1st of April, but this year the sap began to run on March 23 and continued for over three weeks, keeping farmers at work sixteen hours a day

and seven days in the week, not speaking of the chores that they are required to do. Some tapped as high as two hundred trees, and when it is considered that each tree gives from eight to twelve quarts of sap every twenty-four hours, it requires a great deal of work to gather it, but more time to boil it down. For years the sap has not flowed so freely as this season, and farmers predict good crops as a result of this evidence. Cool and frosty nights followed by warm days are conducive to the flow, and the result is that in many a home gallons of syrup are stored away.

The methods employed in tapping trees vary slightly, but as a rule a hole two inches in length is bored into the tree and a spile of shumach wood, split open and grooved, is put into the opening to convey the sap. Large pans holding from forty to sixty gallons are erected in the woods and the sap reduced to one-seventh before taken home. The busy housewives continue to boll down and "sugar off" until the quantity has been reduced from 100 per cent. to 2 per cent. or till it crystallizes. The sugar properties in the juice vary with the season, a wet spring often increasing the quantity and decreasing the sugar properties. The sap ceases to flow when trees begin to bud. The yield from one tree varies from two to six pounds of sugar. Unless men undertake the manufacture of it on a large scale it barely pays the labor, and taking in consideration the shortness of the season, it is apparent why so little maple sugar is made.

Twenty years ago maple sugar sold at 15 to 18 cents a pound and \$1.50 to \$2 a gallon. It has been on the decrease gradually because granulated sugar is cheaper and better for general purposes, whereas maple sugar is more of a confectionery and carries with it impurities which give it a sweet but pungent taste. It is hard to get pure maple sugar, as some of the producers find it profitable to mix it with granulated sugar. Pure maple sugar is always dark brown, whereas the adulterated is usually of reddish yellow color.

Maple sugar now sells at 10 cents a pound and \$1 a gallon. The producers prefer to sell the syrup because it is easier to prepare and they then find it more profitable, one gallon making only about eight pounds of sugar. Since the production of this commodity has been on the decrease, a great deal is shipped here from other States. One of the confectionery houses gets about two tons every year from Pennsylvania, refines it, casts it into cakes and sells it at a profit.

The maple sugar season gives rise to new amusements and sugar parties are the fad at that time. They all get together and boll sugar, stir it till it crystallizes and eat to their heart's content, only to leave the hostess chagrined over the sugary saucers, pans and plates and giving the doctors a chance for a few days' visitation. Another innovation is to place the boiled sugar on ice and after it is cooled it is like wax, and when mixed with butter beats anything in the market in the line of sweets.

R. G. S.

Hon. C. C. Bird, of Baton Rouge, was a guest of the Royal on Monday.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: Last week's Ascension letter opened with the remark that "we had another nice little rain Tuesday night." This week's record can be started with the still more gratifying announcement that we had a good big rain Monday morning. The down-pour commenced about 4 A. M., and continued an hour or longer, the precipitation reading an aggregate of 1.70 inches, according to Local Observer Park's official gauge. Not only was the quantity of the moisture sufficient for the needs of the occasion, but what was still more important and gratifying, it was followed by warmth and genial sunshine instead of the cool temperature that has succeeded all the previous showers this season. Planters and managers have been wearing broad smiles or expressions of great peace and satisfaction since the occurrence of this welcome visitation, and in emulation of their good humor all nature beams with joy, and vegetation seems to have taken on a new lease of life and luxuriance.

The river has continued to creep up slowly toward the maximum stage which Observer Park has prescribed for its rise at Donaldsonville—that is, twenty-eight feet above low-water mark. At 7 o'clock this morning the gauge indicated a stage of 27.1 feet above low water, and advices from points above justify the expectation that Mr. Park's limit will not be exceeded.

Although it is reasonably certain that the present flood will not assume dangerous proportions, the police jury, as a matter of precaution, has joined the levee authorities in giving notice that the law against live stock being allowed to roam at large will be enforced until after the river has fallen below the bank-full stage.

Mr. George B. Reuss, of the Reuss and Belle Helene Planting and Manufacturing Companies, reports an excellent stand of cane on Germania and Belle Helene, and anticipates a favorable year for the sugar industry. The Belle Helene concern is in the market for cane, and will be in a position, by reason of enlarged and improved manufacturing facilities, to pay the highest market prices for the product. The Belle Helene factory is not only eligibly situated by reason of being in close proximity to the Mississippi Valley Railway, but is preparing to reach out among its neighbors by means of tramways and to grind all the cane in sight that can be pre-empted.

Manager J. Elphege LeBlanc, of Messrs. B. Lemann & Bro.'s Belle Terre place, says the crop outlook there is very good. Fall plant cane is simply beautiful; stubble is the same, and early spring plant, though somewhat thin, is better than it has been for several years at this season. Mr. LeBlanc says he has never seen better looking stubble at this time of the year than that on Belle Terre, and he is among those who see nothing in the existing situation or prospects to complain or feel apprehensive about—not excepting the imminent war with Spain.

Col. J. E. St. Martin has encouraging prospects in view on Pellico, Arlington, and Bar Harbor, and Managers John W. Tucker, of New Hope and Ascension, J. W. Gleason, of McManor, J. A. Melancon, of Evan Hall, and Stark L. Davis, of Souvenir, are also contented with the indications for the coming crop so far as developed to date.

Preparations for the dinner and ball at the Planters' Club are going forward favorably and it is determined that war or no war these entertainments will both come off.

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been very favorable since last report. There were two or three good showers which were not, as on two other occasions lately, followed by cold weather. A good number had begun applying fertilizer and others will begin immediately. The fields have been thoroughly worked and all are clean.

From Mr. Joseph E. Bargas, of Regina, we learn that the frosts we had some ten days since killed many acres of young cotton in the Grosse Tete and Maringouin sections of the parish, and the farmers have had to replant.

A mortgage on a plantation to secure payment of bonds maturing fifteen years hence, and bearing interest at 6 per cent. per annum, was filed for record a few days since, in the office of the clerk and recorder of this parish. We learn that money is plentiful at New Orleans, and that there is no difficulty to place bonds of this nature, when they are well secured. There are very few planters who have their sugar houses so perfect that they can not, with new machinery, add from five to twenty pounds of sugar per ton of cane to their general extraction, or save double the cost of the interest in labor-saving devices; and it is probable that numerous big improvements will be inaugurated. The fear of not being able to meet short time rates has kept many a planter from making even the most necessary improvements.

Messrs. LeBlanc & Danos, of Plaquemine, have engaged Mr. William Arbour, of the same place, to overhaul the machinery at the Milly plantation, and put it in first-class order to take off the large crop which they will raise, as well as that to be purchased. The Shakespeare Iron Works will make a new housing for one of the Milly's mills to replace one cracked by a cane hook on the last day of rolling.

The Jesuit Fathers of Grand Coteau are contemplating extensive improvements in their little sugar house. Brother Joseph, the manager of the place, was at Plaquemine last Monday looking at machinery offered for sale by those who have enlarged their plants. Brother Joseph finds the cane on the river more advanced, and the fields better worked than those in St. Landry parish. He says, however, that with their crude apparatus they sometimes get 125 pounds of sugar per ton. The Hart Well Company, of Plaquemine, is boring a well for the Jesuit Fathers.

The J. Supple's Sons Planting Co., Limited, are making preparations to extend their

Catherine railroad to the Bayou Manufactory Ridge in the Square League, where some fine fields are being cleared for cane.

The advance in the price of oats will have the effect of making some of our people devote more attention to corn. Thousands of dollars could be saved every year without interfering with the cane crop; in fact, the mules seem to work better when fed on home-grown feed.

Mr. Frederick J. Grace, formerly assistant manager of the Milly plantation and Miss May Dardenne, daughter of the late John L. Dardenne, and granddaughter of Mrs. F. C. Dardenne, of the Crescent plantation, were married last Tuesday at Plaquemine.

District Court has adjourned to the 26th inst.

Ground has been broken for the saw-mill on the old Morning Glory site near Plaquemine and a large force of mechanics are now at work.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: From a purely agricultural standpoint, the week just closed has been a favorable one. Very little rain had fallen this month, and the planters were beginning to want some. It came at night. Last Sunday and Monday nights heavy rains fell, on many plantations forcing a stoppage of field work until Wednesday noon. These rains were needed and have been pronounced very beneficial to the growing crops. Reports from every section of the parish are not quite so encouraging as was the case some time ago. Fall plant and stubble are doing well, but numerous complaints are coming in relative to the spring plant, which is by no means what it should be. The cold rains that prevailed in March are held responsible for this untoward condition. Speaking along this line a planter remarked a few days ago that on his place the spring plant lacked about 15 per cent. of being as promising as it was a month ago. Others who have good fall plant and stubble make the same complaint. "Spring plant is not very promising," they say.

Despite this and several other less unfortunate circumstances, our planters are not discouraged. Field work is being pushed forward as rapidly as circumstances will permit, and those planters who contemplate putting in improvements this year are making preparations therefor. It is understood that Mr. Levert expects to put up a new vacuum pan at St. Mary, and constructing a tram road through that place and St. Delphine for the benefit of the small planters in the neighborhood from whom he purchases cane. Mr. Levert reports his stand of cane as fairly good.

Cinclare has purchased the entire growing crop of Mr. Fred. D. Robertson's plantation, Iberville, which amounts to about 10,000 tons. This is the largest crop ever bought by a factory in this section.

The crops on the Lefebvre plantations are said to be in excellent condition and very promising.

Mary Emily, daughter of Mr. and Mrs. David Devall of Orange Grove, died last Wednesday. In their sad affliction the bereaved parents have the sympathy of

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been fairly favorable for out-door work, but not altogether suitable for the cane, being still too cold, thus robbing the benefit of the rains. Sunday and to-day, however, have been warm, and we had to-day a few light sprinkles, indicative perhaps of more to come, but of themselves not enough to do much good. As a result of the cool weather, the corn in some places has been cut down by worms. This year on the sandy land the corn seems to be more injured than on the black stretches. We are told that the cool weather keeps the worms from developing into fire-flies, and that it is in their transition and rather just before that they are so destructive on the corn. I hear a good many complain that the fruit crop will be short, and that many of the peaches have dropped off since the cool spells that have characterized the month of April.

Planters are well ahead with their work, and are rather waiting on the crops and the rains. Much of the early corn has been worked, and has already received its quota of cotton-seed meal to give it a good start. The meal is also being applied to the stubble. There is plenty of young shoots to be seen in the plant cane, but hardly enough to give the desired stand, and it will have to sucker very diligently to make up for the present lack of stand. Just at present the coal men are taking advantage of the present stage of water, and the tugs are hard at work delivering the black diamonds to the planters.

The war scare does not meet with much encouragement in Assumption; a very large majority of the planters and business men look with disfavor on the craving for battle shown by the jingoes.

The people of the South have but little to gain from war, particularly as it may result in the annexation of Cuba, and as it is we have enough incongruous elements to assimilate into the body politic without the introduction of complications. The price of cotton, too, will probably be unfavorably affected by a war with Spain. If the jingoes would be the only sufferers from the miseries of armed conflict, perhaps there would be less opposition. However, we suppose in a short time we will know the verdict of Congress.

Since writing the above we had a fine rain, and luckily this time not followed by a cool spell. There was a slight fall of hail this morning, but not heavy enough to do any damage. The rain will soon determine how much of the plant cane is coming up, for with the moisture and the warm weather it will not take long for what is still under ground, that is good, to put in an appearance.

Mr. Ernest Barton, of Ascension, was here to-day, and reports the stubble as unusually good on St. Emma. He says that there is some complaint as to gappy cane in his neighborhood.

Since the rain the corn looks remarkably well, and in the course of a few days those who have been waiting for rain before finishing their corn planting will have it all in the ground. There seems to be a demand for im-

proved implements, and subsoil ploughs and cultivators are being shipped in by the implement drummers by the score.

We hear that an offer has been made to one planter to take all of the sugar he has on hand at the rate of 4 cents per pound, including yellow clarified and seconds, the moment that war between the United States and Spain is declared. This looks as if one man at least thought that the declaration of war would be followed by a rise of prices. This does not seem to be the universal opinion, however. Mr. George G. Walker, of Centreville, reported crop prospects unusually fine on the Teche, and that both stubble and plant mark the rows and are almost a complete stand. Mr. F. W. Denny, of Iberville, and family, paid a short visit to Woodlawn the latter part of last week. Mrs. Philip S. Pugh is spending a short time there with her two boys. MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: The recent copious rain, which was apparently general throughout the parish, was welcomed by all, as the fields were becoming very dry, vegetation somewhat retarded, yet perhaps more from low temperatures than want of moisture, and many cisterns nearly empty. The land, previously somewhat cloddy, can, as soon as dry enough, be put in fine tilth with harrow and other implements. Should the weather continue warm, eyes of both plant cane and stubble having the necessary vitality will soon germinate, and by the first week in May the planters will be able to form an opinion of crop prospects. The sprouts already up will now assume a healthy color, and ere long the young canes will make root should not excessive rains follow the dry weather.

That stubble crops are more to be relied on than thirty years ago is generally admitted, and the reasons for which are that the lands are in a better physical and manurial condition than at that time, when they had been subjected to exhaustion and defective drainage.

In the early history of the cane sugar industry in the State, ratoons were estimated to yield more sugar than plant cane, due to the low sucrose content of the latter, they coming from the newly cleared fields as properties were enlarged.

Those who anxiously looked for rain and got it are now equally anxious for dry weather, to enable them to fertilize their fields, both plant and ratoons. Those who appreciate the situation will strive to destroy every sprig of grass possible prior to the advent of warm showery weather—to kill grass with two leaves is easy and inexpensive, to eradicate bunches is arduous and expensive in the extreme.

Latterly, the canes have thickened rapidly, both plant and ratoons, and now planters have only to dread too much rain in May and June. A good cultivating season for the next sixty days will insure a promising crop. Generally where the corn has been well planted the crop promises well; where the work was roughly done, the plants are small and the stand defective. Those who were fortunate in having fertilized their fields prior to the rain will

reap the benefit, as decomposition will progress rapidly, and the available food thus prepared will cause the young canes to root and develop rapidly, should the season prove favorable. When sucrose per ton ceases to be sacrificed to tons of cane per acre, then the application of manures will be performed at an earlier date, and the mechanical division of the particles of the fertilizer will be better appreciated.

Early promising crop prospects will tempt factory owners to invest in new machinery to enhance the efficiency of their manufacturing plants. To secure extracting plants, and batteries of boilers of the highest type will be to expend capital judiciously, when the generated steam is most economically utilized in multiple effect evaporation. Other large expenditures may be of doubtful utility.

Wednesday of last week light showers fell in the morning, with cool wind in the afternoon; Thursday, clear and cool; Friday, bright sunshine; similar conditions prevailed on Saturday; Sunday, warmer and cloudy; Monday, cloudy with south wind; Tuesday, thunder and rain after sunrise, with clearing weather later in the day, and Wednesday, bright sunshine.

The official weekly report of the weather at Schriever is as follows:

	Temperature.		Sunshine	Rainfall.
April 11.....	84	49	.....	100
" 12.....	84	52	.....	100
" 13.....	84	59	.14	75
" 14.....	71	49	.....	100
" 15.....	73	41	.....	100
" 16.....	81	49	.....	100
" 17.....	84	45	.....	100
	80	49	.14	

TERREBONNE.

Vermillion.

[Special Correspondence.]

Editor Louisiana Planter: The weather condition for the past week has been more even and more favorable to the general crop than for several weeks past. There was a slight fall in the temperature last Thursday, the 14th, which lasted till Sunday following, but not serious enough to do any damage. The crop condition is improving, and with a few days' favorable weather, the setback that was caused by the cold weather will be removed, though the farmers generally are complaining of the chinch bug on both corn and cane. Mr. W. D. Gooch, a prosperous farmer of the vicinity of Perry, this parish, brought to your correspondent this afternoon (18th) a few stalks of corn that was literally covered with these little pests, and he reported that his entire neighborhood was alive with them. Reports from other parts of the parish are to the effect that the corn crop is being totally destroyed in many places. An appeal has been sent in to Agricultural Commissioner Lee for aid, and some of the planters have applied to Chancellor Snow, of the Kansas University, for his fungus disease, *sporotrichum globuliferum*, which is claimed to be very fatal and effective. Some plan of extermination will have to be found, else the corn crop will stand in great danger of being a total failure, and

cane will be materially damaged. Rain fell in torrents here this evening, and it is hoped that the vast amount of water that is now on the ground will assist to rid the fields and check the ravages of the insects.

Rice farmers are putting in full time now seeding their land. Messrs. Wise & Lyons have already seeded about 200 acres of their farm west of Abbeville and about 100 acres of it is already up to a good stand. The secretary of the Vermilion Development Company has called a meeting of the stockholders of said company some time in May to make some changes in the charter of the company. They are now rapidly pushing to completion the annex to their large canal in West Vermilion and will be ready to flood the neighboring fields before the rice is large enough to require watering. Quite a large acreage of providence rice will be put in, though there is considerable fear entertained of the chinch bug, as it preys on rice more than any other plant.

Cotton is receiving but little attention in the parish this year. In sections where it is too far to haul cane for delivery to the railroad or refineries the farmers are planting corn.

It is to be hoped that more refineries will be erected in this parish, thereby affording greater facilities for raising and disposing of cane. There are a number of very fine locations in this parish for central refineries. We notice that a very desirable location for a central plant is advertised to be sold at succession sale on the 21st of May. This place is located on the Vermilion river, twelve miles south of Abbeville, and contains 1675 acres of very fine cane land. It is known as the Hope Mill plantation and is in charge of Mr. Solomon Wise, of this town, who is administrator.

Mr. and Mrs. Ferdinand Marks, of New Orleans, spent several days here this week visiting their daughter, Mrs. Eli Wise.

Mr. O. M. Nilson, president of the Vermilion Sugar Company, is transacting business in New Orleans this week. P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: At the present moment the weather is more favorable to the planting interest than it has been at any time since the first of the month. Just how long these favorable conditions may remain with us is a question of the utmost importance to those who have in hand the cultivation of the soil.

To say the least, the crops are all backward, but no more so than they have been at same date in past years, and if I mistake not the prospects on field and farm are much more promising to-day than on same week and date of last year.

When referring to my notes I find that we had in April, 1897, but two days on which rain fell, the 6th and 29th. The month was very dry; plants made slow growth; cotton in particular was late in coming up, and when it did some time elapsed before it began to grow.

A fine rain fell over this country on the afternoon and night of the 17th inst., followed on the 18th with warm and cloudy weather with indications of more rain to follow soon,

which will be beneficial unless the wind changes to the north, which is to be hoped will not occur.

Cane, corn and cotton, the most important crops produced in this and neighboring parishes, will now burst through the soil and grow, to the joy and admiration of the farmers and planters.

The cane planters are growing more hopeful as the days pass away. The stubble is behaving beautifully this spring in the face of all drawbacks, late frost included. A good stubble crop will be a rarity not witnessed for the past three years up here. Plant cane is now growing out through the rich soil to greet the rising of the morning sun and grow into splendor.

Mr. James H. Kennedy, master mechanic, writes to me from Barbreeck this week with respect to the crops, etc., there. Mr. Kennedy says that the crops are somewhat backward on Barbreeck and locality, but not seriously so. The stubble is very promising for the season, while the plant cane is a bit slow to come out; yet there is every reason to believe that with the advent of warm rains and weather the plant cane will soon develop a perfect stand in Barbreeck's broad fields, and for that matter on all places in the vicinity where a stalk of cane has been planted.

Mr. Kennedy says the Augusta Planting and Sugar Manufacturing Company, Limited, has acquired the old St. Peters plantation and with their worthy president, Mr. Aug. Lesseps, at the helm, is surely transforming the old place into one of modern beauty. The old machinery is now being torn out of the sugar house to make room for new and more modern machinery. I think that I am safe in remarking that it will be but a question of a year or two at most until the Augusta Planting and Sugar Manufacturing Company, Limited, will find the acreage to cane increased to such an extent as to demand the erection and operation of as large a factory as is now found at work anywhere in the State. In this instance THE PLANTER's scribe feels pretty safe in making the prediction that these demands will be fully met by Mr. Aug. Lesseps.

Mr. R. G. Chevis, of Haasville, visiting and returning from Washington, La., on the first of this week, informs me that he learned while there that the planters in the vicinity of Washington were anxious for rain to bring their crops up to a stand. The acreage of cane in that locality has not been increased much if any above that of last year, possibly owing to want of factory facilities sufficient to work the cane when grown. ERIN.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: The too fair condition of the weather which had been prevailing for quite a length of time, with a constancy which was seemingly of a remarkable duration, was broken by a good and most profitable shower on Tuesday morning. The great want of rain which had been hitherto felt so extensively has died out, and great satisfaction has been already derived from this appropriate rainfall. Everything was suffering from the

drought, as, besides a light shower, which was more seen than felt, a week ago, we had had no rain whatever within the last three weeks. The canes which the planters had hoped to see growing with such promising vigor had not even sprouted in some places, and their many hopes were being despaired of instead of realized. After a day of cloudiness, Tuesday morning the reaction took place, and we had a very heavy and steady rainfall, accompanied by a stunning thunder storm which shook everything.

Although the shower did not last very long, it fully answered the demands of the planters. In three hours everything was over, the elements were once more quieted and nature appeared arrayed in her peaceful attire, accompanied by the glorious sun, and most delightful spring weather has since been reigning. The spring days are actually grand, vegetation being now in almost full bloom. The early blossoms are daily making their appearance, and nature in her verdant aspect seems to smile most gloriously at the return of this reviving season. Outside of the slight damages caused by the want of rain the crops are all very fine, although in some places they do not fully answer to expectations. Still, there can not be much cause for complaint. All are actively at work, on some places ploughing and others putting down fertilizers. Many of the planters who had sowed their corn crop early have had to sow another seed, as owing to the want of moisture sprouting was very poor in many places. The rice planters have the good luck again this year of having a natural flow of water to revive their crops without the help of the very expensive pumps, which alone can consume the almost entire profit made by their cereal crops, as the river is now at a stand providing for their benefit and at the same time not at a point to cause alarm.

At the time of the sale of the Hester and David plantations, bought by Gramercy Company, this company purchased 200 arpents of land, constituting a great part of what is known as the Grand Point Settlement, which has been for years cultivated in tobacco. This new acquisition was put into a corn-field this year, while next year it will be converted into a cane district. Many of these Grand Point settlers have purchased small tracts of land from the former Belmont plantation, which is getting to be a nice, well populated little town.

We understand that the Oneida Planting and Manufacturing Company will this year put up somewhat extensive repairs in their sugar house. This already neat looking plantation will by this gain that much more importance.

CONVENT.

Mr. Ernest H. Barton, one of the prominent Ascension parish planters, was in New Orleans Wednesday, accompanied by his family, and stopped at the Cosmopolitan.

Mr. M. Billeaud, Jr., one of the rising young planters of Louisiana, and one of the best posted men in his line of business in the State, was in the city during the past week and stopped at the Grunewald.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, April 2, 1898.

Editor Louisiana Planter: The hopes for better weather have been this week again frustrated. The first days were pretty dry and also warmer, but the temperature rose too suddenly, and the consequence was the outbreak of more or less heavy thunder storms, which, at this time of the year in this climate, are invariably followed by cold and inclement weather, which has been the case in the full meaning of the word, rain, snow and hail storms forming a sample of all disagreeable meteorological conditions and the temperature sank as low as freezing point. One might say that the winter, being prevented from wielding its icy scepter at the proper time, is now revenging itself by spoiling the spring and by causing all kinds of meteorological adversities. On the other hand these phenomena of the weather are not altogether unusual at the present period, but they are this time more unwelcome than in any other year, because of the bad weather prevailing for a very long time. In other years field work is, in a similar case, only interrupted, but at present it has practically not begun yet, and there is now certainly some backwardness which it will be hard to retrieve in proper time. In this respect France is also joining in the complaints, and desires a speedy return of more genial weather. Comparatively favorable has been the weather in Austria. Variable weather is reported from Belgium and Holland, while in Russia the week under review has been again very cold.

The clouds shrouding hitherto the probable area planted this year with beets in Europe begin to clear up a little. In Germany the society for the sugar industry, section for raw sugar factories, have held an inquiry on the subject, and the returns obtained are indicative of a decrease of about 5 to 6 per cent. as compared with the preceding year. These are of course provisional figures, but they are nevertheless reassuring for the market; so is the news from Holland, where likewise a reduction of about 5 per cent. is looked for, and in the province of Eastern Bohemia in Austria a reduction of 9 per cent. is spoken of; France it seems will grow about the same surface as last year, whilst Belgium intends to grow about 10 per cent. less. Only Russia will produce this year more beets than in 1897; no less than twenty new factories being expected to be added to those working at present.

The European sugar bounty conference will, according to latest advices, take place in June, and as far as now ascertained the following countries have declared their intentions to participate: Germany, Austria, Great Britain, France, Belgium and Holland. I wonder whether this time the negotiations with regard to the abolition of bounties will be more successful than the eight preceding meetings of this kind. To overcome the resistance of France it has been proposed to induce her to introduce the system of Russia, who nominally

does not pay any bounty, but whose sugar industry is nevertheless most effectually protected by the regulation of production and of supplying the market. This, however, is possible only in a country which consumes the greater part of its production, which in France, and of her colonies, is not the case, the less so, as the French consumption at present is making a very poor showing.

Reports are to hand from Egypt with regard to the results of the last campaign. This latter is being ended by the factories of the Daira-Sanieh (crown estate of the Khedive). The three factories, El Hawandieh, Cheik-Faddie and Nag-Hamadi, which are owned by a French company, have shut up already about three weeks ago, and the refinery El Hawandieh, which belongs to the same company, has for about forty-five days suspended work and dismissed a great part of its officers. The cane worked has not yielded this time as satisfactorily as had been expected. This is owing to unfavorable weather in the months of December and January, there having been hard frosts and ice on the fields, which have not been observed in time out of memory. The sugar export of Egypt amounted in 1897 to 72,920 tons, and its value is estimated at \$3,172,600. As compared with 1896 there has been a falling off of the export of about 680 tons. Egypt sells also molasses to foreign countries. In 1897 the quantity sent abroad was 6557 tons, which, however, is also less than in 1896, when the molasses export from that country amounted to about 11,000 tons.

The general assembly of the great Beet Sugar Association of the Austro-Hungarian monarchy will take place on June 27-28, at Vienna. This place has been selected this time on account of the festivities which will take place this year, in order to celebrate the fifty-year jubilee of the Emperor of Austria's accession to the throne.

The statistical situation of the three principal beet countries of Europe—Germany, Austria and France, is defined by the following figures: Production from August 1 to February, 1898, 3,271,119 tons (1896-97, 3,286,463 tons); importation, 63,973 tons (93,152 tons); exportation, 1,113,788 tons (993,431 tons); consumption, 983,750 tons (831,057 tons); final stocks, 1,991,826 tons (2,251,162 tons); decrease of stock in February, 114,338 tons (110,384 tons). The development in the north under review has not been as favorable as in the first part of the campaign, exportation and consumption having fallen off everywhere, and in order to keep up the still comparatively propitious position a decided improvement in both directions is urgently needed.

The markets opened this week again with a very languid tendency. There has nothing happened to account for this renewed weakening, but the confidence in the article is much reduced and there would have been hardly a change for the better but for the American advices which announced a sensible falling off of the Cuban receipts and of a generally strengthening tone of the markets in the States, together with rising New York quotations. The drooping movement of prices was then at once stopped and at most places the losses

sustained have been recovered, which was also the case in Magdeburg, where actual 88 per cent. rendement closed again at 9.95 to 10.15 marks, whilst at Hamburg delivery April is quoted at 9.125 marks f. o. b. Of refined some descriptions, after a slight price concession, were more eagerly sought for.

ROBERT HENNIG.

Trinidad.

We are told in a private communication from Trinidad, and the news is mentioned in the local *Gazette*, that Mr. James Lamont, who owns two sugar estates in the island, has intimated his intention of cropping his estates, as he considers there is no chance of the West Indian sugar planters' position being improved. The Messrs. Tennant are said to be taking a similar view of the position and to be meditating the adoption of the policy of scuttle. As both the parties referred to are credited with the possession of wealth, their timidity to face the uncertain future is not hard to understand; and no one can blame them for doing what they think best with their own. If, however, now that he has decided to retire from the sugar industry, the first-named proprietor has joined the ranks of those who wish to put a stop to Indian immigration, we think he has placed himself within the reach of public criticism. It is now accepted as a postulate by all intelligent men, here and in Trinidad, that the sugar estates can not be maintained without a continuous supply of reliable labor, which is to be had only by special immigration. If immigration be stopped, the stoppage of the estates must follow in a very short time. It follows, therefore, that because the proprietor in question has declined to close his estates, he thinks it his duty to do what he can to make other proprietors do likewise—which is unreasonable, and hardly the sentiment to emanate from a man of generous mind. There is no gainsaying it that the sugar planters have had a rough time of it lately, and it is small wonder that they should be disgusted with the unjust competition which they meet with in their own country's market; but the assembling of a conference, at Brussels, to dispose of the bounty question, with the evident determination of the British government to give the West Indies a helping hand, is hardly the signal for the sugar planters to "chuck up." Perhaps braver counsel will yet prevail; and the doomed estates may be spared to contribute to the exports of the island for long years to come.—*Demerara Argosy*.

Messrs. B. J. and F. H. Morey, of Pattersonville, were guests of the Commercial during the week.

Mr. Louis LeBourgeois, of St. James parish, was a guest of the St. Charles Hotel last Wednesday. Mr. LeBourgeois is one of the leading citizens of his parish.

Mr. Irving H. Morse officiated as chemist of the Armant place again last season, giving the same splendid satisfaction that he has always done, and winning for himself new encomiums from his employers and congratulations from his friends.

Concrete in the Multiple Effect.

[Discussion of the Louisiana Sugar Planters' Association at their regular monthly meeting, Thursday, April 18, 1898, Judge Emile Rost, President, in the Chair.]

The Chairman—The chair will state that since the last meeting of our association we have had the misfortune to lose one of our most valued members, who was also one of the officers. I refer to the Hon. Henry C. Minor. The chair thinks it proper that this association should pass resolutions and that a committee should be appointed to draw them up.

Hon. Hy. McCall—You have "stolen my thunder." I had proposed that the chair should appoint a committee of three to draft suitable resolutions on the death of our lamented member and officer of this association, Hon. H. C. Minor. I would move that the chair appoint a committee of three to draft suitable resolutions.

Dr. W. C. Stubbs—I second the motion.

The Chairman—It is moved and seconded that the chair appoint a committee of three to draft suitable resolutions on the death of our late member and second vice president, Hon. H. C. Minor. Is there any objection? The chair hears none. The chair will appoint on that committee Hon. Hy. McCall, Hon. John Dymond and Mr. Leonce M. Soniat.

Mr. L. M. Soniat—Mr. President, I have a paper to read this evening, and if you will appoint some one else in my place on the committee I will thank you.

Hon. John Dymond—I was going to suggest the committee might meet after adjournment and incorporate the resolutions in the proceedings.

Hon. Hy. McCall—I would accept that, or, if the meeting so desired, the committee might retire perhaps and get up the resolutions in a short while.

The Chairman—Gentlemen, there is nothing now before the association except the subject which was selected for discussion this evening.

Hon. John Dymond—As Mr. Minor's death occurred some weeks ago, and has already been noticed in the public prints, the committee might now be authorized by you to report at the next meeting, and we can have the report incorporated in the minutes at that time. The chairman of the committee could make a report at that time. If he should be absent, the report could be sent down.

Hon. Hy. McCall—Any way, gentlemen, will suit.

Hon. Jno. Dymond—In that way it would give the committee more time.

The Chairman—Well, then, the resolutions will be left in the hands of the committee to be delivered at the next meeting—the resolutions to be presented at the next meeting of the association.

The Chairman—The subject selected for discussion this evening is the making of concrete in the multiple effects. The chair is informed that papers on this subject have been prepared by Mr. Leonce M. Soniat and Mr. S. Morris Lillie. The chair will first call for Mr. Soniat's paper.

Hon. Hy. McCall—With your permission, I have a resolution I would like to offer.

The Chairman—That would be new business. The chair was not aware you had any new business to offer, and will be glad to entertain it.

Hon. Hy. McCall—I would ask the secretary to read the resolution.

Secretary—

"Resolved, That the Secretary of the Louisiana Sugar Planters' Association be and is hereby authorized and instructed to communicate with the Hon. Wilbur F. Wakeman, of New York, Secretary of the American Protective Tariff League, with the view of having this association enrolled as a member and defender of said Tariff League."

Hon. Hy. McCall—Mr. Chairman, I need not say to the members of this association anything in explanation of that resolution. Most

of you are aware of the existence of what is known as the American Protective Tariff League. I do not suppose there is any organization in this country that has been more instrumental in bringing about the tariff under which we now live, which has produced comparative prosperity in the State of Louisiana; and as this protective tariff league is all-powerful, and as but few of the sugar planters of Louisiana belong to the organization, though a number are being gradually enlisted, it occurred to me that it would be proper for this association, as a body, to enlist themselves as defenders and members of the American Protective Tariff League. Therefore, I would move that this resolution be placed before the meeting for action.

Hon. John Dymond—As a member, Mr. Chairman, I believe it requires the payment of \$100 for membership. This is the distinctive feature of it, and its alliance in organization has been an extremely active one in promoting the protective interests of the country, and therefore it would seem to be a move in the right direction.

Hon. Hy. McCall—Usually they do not apply to associations of this kind—they usually apply to individuals—you ask them to become members; but it occurred to me as only a few of the representatives of this association belong to it—I think five or six in the State—that it would be a graceful thing for this association to ask to become a member of the American Protective Tariff League. You will get a little printed notice asking the association to send through its secretary or president a request that they desire to become defenders and members of the American Protective Tariff League, and you will be called upon to pay \$100 yearly. In certain off years they don't call for any money; but during presidential elections and congressional elections they usually do.

Hon. John Dymond—I would ask Mr. McCall, Mr. President, if it would not be desirable, in the event of their charter failing, or not providing for membership of the kind now suggested, that the name of the president of the association be offered.

Hon. Hy. McCall—I am perfectly willing.

Hon. Jno. Dymond—That may simply be an understanding without a motion.

The Chairman—You will place the honor upon the president?

Hon. John Dymond—In the event the charter does not provide for the membership of an organization.

The Chairman—You would suggest not only the honor but the onus. [Laughter.]

Hon. Hy. McCall—It was proposed that the association should pay. I don't think you will have any trouble getting rid of that one hundred dollars—I will see to it. [Laughter.]

The Chairman—You have heard the resolution offered by Hon. Henry McCall and seconded by Hon. John Dymond; what is your pleasure?

Resolution adopted unanimously.

The Chairman—The chair understands that any answer from the New York secretary will be presented to the members at the next meeting of the association. If there is no other new business, the chair will ask Mr. Soniat to read his paper on "Concrete in Multiple Effects."

Mr. Soniat read his paper, which was published in full in our last issue, and it was moved by Hon. John Dymond, and duly seconded and carried, that the thanks of the association be tendered Mr. Soniat for his paper, and that it be published with the proceedings.

The chair then called upon Mr. E. W. Deming to read the paper prepared by Mr. Morris Lillie, at the conclusion of which similar action was taken as above.

Mr. Kemper—I would ask Mr. Deming to explain the operation of the effect. It is all beautifully illustrated there, and with his explanation it would make it perfectly clear.

The Chairman—If you can point out on the drawing the difference between this additional effect and the other, the association will be glad to hear from you.

Mr. Deming here gave a practical illustration of the working of the apparatus referred to in his paper, and pointed out on a large drawing the *modus operandi* of the three effects and concretor.

The Chairman—I understand from the paper you read, Mr. Deming, that in one of the analyses mentioned, you gave seventy-six as the polarization, and in the other you gave seventy-three. Is that correct?

Mr. Deming (referring to his paper)—One was 77.3 and one 79. They were different samples.

The Chairman—77 and 79. The chair would state that these analyses come very near the average polarization of former open kettle sugar.

Mr. Deming—The coefficient purity was 84.2 and 84.4. I would like to call attention to a little sample of concrete that I have here that was made five and a half years ago; it is St. Tammany molasses. The box in which the concrete is placed is pretty old and is rotting away from it.

The Chairman—That is the color? In the early part of '92 Dr. Morrill made something like that by forcing steam up through a tube.

Dr. W. C. Stubbs—That was an evaporator; it came through a superheated tower.

Mr. Deming—At the time this was put up, the object was to take this St. Tammany molasses, concrete it and run it out in pasteboard boxes, and ship it to the people in the North as a guarantee that it contained no adulteration of any kind. It was expected to break these boxes by placing them in a basin of warm water, melting the molasses in such shape that it would be ready for the table. I got this from Mr. Stringfellow; he was interested in the process. Three months ago he took a box merely to try it and it still retained the same flavor that the molasses had at the time it was put up five and a half years ago last December.

Mr. Leonce M. Soniat—Open kettle molasses?

Mr. Deming—I presume it is.

Mr. Churchill—While Mr. Deming was reading that paper an idea crossed my mind. Perhaps a limited quantity of this could be sold to the molasses people in the summer time. In summer time good syrup is considered more valuable than sugars. They could melt it and mix it. They might find a limited market that way. Mr. Blouin has an analysis of this sample, and if he will be kind enough to give it to us I know it will be interesting.

Mr. Blouin—Yes, sir. Total solids, 89.95; sucrose, 77.95; glucose, 6.07; the other I have not got.

The Chairman—In the papers read this evening nothing is said about the commercial value of concrete as a product of the sugar house; nothing has been said as to whether the refineries would care to take it, or whether concrete has ever been placed on the market in this country. I have a recollection of concrete being made in British Honduras with Fryers concretor which was sent to England to be refined there. I had a relative who was in charge of a sugar estate in Honduras; and at that time most if not all the concrete that was made there was shipped over to England. I have never heard of concrete being on the market in the United States. I would ask Mr. Dymond's opinion whether if that were put on the market, either by the Dutch standard or by our commercial classification where thousands and thousands of tons of cane sugar is marketed, how it would be classed, or where it would come in.

Hon. Jno. Dymond—Mr. President, there is hardly any doubt but that under the existing regime this sugar would be so discriminated against by the sugar refineries in their purchase of it that we would lose about all the benefits that Mr. Deming's paper refers to—

that of increase in the product, which I calculate is about 40 per cent. It is the custom among the sugar refineries to give a diminished price for each point lower in the test. If the sugar falls below the standard, say, of 96, while 97 test would be worth, we will say 1-16 more than 96 test, 89 test would be more than 7-16 less than 96 test. In fact the discrimination would increase with the diminishing ratio more than 1-16, it would be about 9-100, and then, perhaps, an additional one-eighth of a cent per pound on account of the color. Now, Mr. Lillie, in a conversation indicated that he thought the refineries would be willing to do better than their present existing schedule plan of buying. He thought they would do better with concrete—in buying concrete—than their present plan would indicate; but thus far they have not done so owing to there being no such material offered to them. But if we take this sugar, say, at 78 test—that is, eighteen points below 96 test; eighteen points at 9 cents is $1\frac{1}{2}$; take off $\frac{1}{2}$ of a cent on color, and you have for that sugar $1\frac{1}{4}$ less than 96 test. Now if 96 test sugar is worth 4 cents per pound, that would make that sugar worth about $2\frac{1}{4}$. Now add 40 per cent. to $2\frac{1}{4}$ and you will have 90 cents increase; and so with the increased loss you would then only have $3\frac{1}{4}$ cents in place of 4 cents which you get by the other process; but you have saved in the matter of cost of manufacture, and likely one would offset the other. So far there would be no particular advantage—that is, so far as the present sugar houses are concerned there would be no particular advantage; but you would have sugar houses in the future costing one-half of what they now cost. So it would seem to me while Mr. Lillie's process as suggested here is most admirable, yet it does not offer, thus far, any particular advantage to those who already have sugar houses in operation. If, however, he can secure from the sugar refineries some concession—if they will cease to discriminate against this sugar, as they do against the low grade Manila and Indian sugars—then there might, perhaps, be some advantage. But bear in mind while they only rise $\frac{1}{2}$ in price for deliveries above contract test, they go down $\frac{1}{2}$ cent in price for each point below contract test. The increased amount of impurities renders the refining more difficult, as sugars go down in test. Therefore, all this cheap Brazil, Manila and other low grade sugars they buy upon schedule prices would give about such results as now indicated. Therefore, it seems to me there is not much money in this process at the present time.

The Chairman—Would not the presence of the total amount of molasses in this sugar discriminate still more against it by reason of the fact that the low grade Manila sugars have been deprived of some of their molasses?

Hon. John Dymond—These sugars are just sufficiently dry to stay in the palm leaf bags in which they are shipped, and I should think that the final test of these sugars, say testing about 80 to 82, would correspond with these 79, would be much the same, both bought on the same plan of buying, about on the line which I have just now indicated.

Dr. W. C. Stubbs—There is one point omitted. Every sugar house in the State can get from 85 to 90 per cent. of the sugar out of the total contained in the masse cuite. In this instance you will get the full 100 per cent.

Hon. John Dymond—That is a good point; that with concrete all the contained sucrose would be sold, whereas, with 96 test sugar, the sucrose that is still retained in the molasses is not sold; that has no value because, with our process, it is incapable of separation. Now the other point would come in. I indicated that this would give a result of about 3.15, against 4 of the other. The only additional cost would be that of boiling to the grain and centrifuging, which two processes are not very expensive; and therefore I would say that the saving of the sugar in the molasses, it having been sold in the concrete, would not

cover the loss of the difference in the price, and therefore considering the point raised by Mr. Kemper, and now again by Dr. Stubbs, referring to the statement that we would then sell all the sugar, and not lose a part of it now as we do in the molasses, still I don't think we would realize any gain with the present plan of buying adopted by the refineries. Mr. Eastwick is here, is to the manner born, knows all about it, and I would ask if he will not favor us with some information on the subject.

The Chairman—I want to get the commercial side discussed first, and then we will take up the technical part of it; I want to get Mr. McCall's views and I will then call on Mr. Eastwick.

Mr. McCall—I don't know that I have anything more to say than what Mr. Dymond has said. I think it is a question of what we can get for that kind of sugar.

The Chairman—You will notice the figures given by Mr. Lillie.

Hon. John Dymond—Of twenty-five years ago.

Hon. Henry McCall—There is no doubt that concrete sugar is no new thing, as the president stated himself. He refers, I suppose, to Mr. McCutcheon—his days down in British Honduras. My cousin, Mr. Richard McCall, was also there. Fryer's concretor is not a new thing; but even these British colonies gave it up as unprofitable.

The Chairman—Have given it up since?

Hon. Henry McCall—Yes, sir, have given it up since.

Mr. Leonce M. Sonlat—It was made under a different process.

Hon. Henry McCall—It was made under a different process, but then even they experienced difficulty in selling this sugar, even in Great Britain. Just exactly how they buy sugar there, I do not know; but I am pretty well satisfied that unless the refineries adopted some different method of buying sugar, and I don't see why they should, because as I understand it, their object is to buy as high grade sugar as possible; they would rather buy 98 test sugars than 96, it gives them less trouble; it does not dirty their bone-black, and renders refining cheaper in every way. I should say that the refineries would prefer Louisiana planters to make the highest grades of yellow sugar. They would discourage our making such low grade sugars as that unless they thought they could get it at a very low price.

The Chairman—Have you ever heard of this as an article of commerce in the United States?

Hon. Hy. McCall—No, sir; I have not. It is not a new proposition. It is one I have often thought about a great deal, but I have never seen any market for it—even now. We can make with our centrifugals and vacuum pans, we can make a very low grade of sugar by simply drying it, put it in some sort of a package, ship it. Even then we have not thought that that would pay—even to bring it down as low, we will say, as ninety; but it strikes me if we get sugars down to that point, and of course it would be very difficult to regulate that, you would get a poor juice; and you may get your sucrose down to 72 or 73. I feel satisfied Mr. Deming did give one test at 73. I listened very carefully to that test. If we go as low as that, why that would make the difficulties of the situation still greater. I must say that I don't see from a commercial standpoint I don't see anything to be gained; though of course that process is very alluring, very beautiful, you know, to speak of manufacturing all of your sugar right there at that concretor—let your stuff run into barrels, tanks or any kind of cars, or anything, and just shove out into cars. Of course, it can be a tremendous saving. Even then I don't think the extra cost of manufacturing the sugar would pay, especially as a majority of the planters have their plants established in Louisiana, and it would not pay to throw them out. They can make the sugar reasonably cheap after it passes that state. Unless you

can find a market for sugar, it certainly would not pay. I don't see at the present time any market for it. I don't believe the refineries would encourage the manufacture of such sugar.

Mr. Leonce M. Sonlat—I notice that no one has taken into consideration another view of making concrete, which I suggested in my paper; that is, that sugar houses which are not fixed as refineries could make concrete and sell it, not only to the Trust in New Orleans but to the large refineries of the country. What is the reason Mr. McCall could not buy concrete and work it into good sugar, any of us who have refineries, and then we could, by working after grinding, work that stuff up, and instead of paying for freights on a ton of cane, we would be paying freight on perhaps 150 pounds of concrete, or 200 pounds, as the case might be. It strikes me that there would be plenty of demand for that concrete after the planters found it was possible to work their refineries after the grinding is over.

Dr. W. C. Stubbs—Mr. Dymond has given us figures that I have been very anxious to get. I would like to submit them and ask if I have made an error. He says we will get from 3.15 for concrete, and 4 cents per pound for 96 centrifugal. Now, comparing the work of greater handling, the work of handling in a Louisiana sugar house—

Mr. Dymond—The 3.15 is for 140 pounds concrete and 4 for 100 pounds 96 test.

The Chairman—The 90 cents is to be added to the 2.25.

Dr. Stubbs—That is for each pound of concrete; but I do not understand; you mean that is 3.15 for sugar in the concrete?

Hon. John Dymond—For 140 pounds of concrete.

Dr. Stubbs—I thought it was 3.15 for 100 pounds.

Hon. Hy. McCall—One hundred pounds would be 2.25.

Hon. John Dymond—That is the existing plan.

Mr. E. P. Eastwick, Jr.—Mr. President, I agree with Mr. McCall in a great deal he said, but I think there is an error here in what Mr. Dymond said, and some of the other gentlemen, in regard to the value of sugar. While it is at present the custom to pay so much for a 96 testing sugar, for instance, when it is first sugar, and so much for an 89 testing sugar when it is second; and on the basis of this process take off 1-16 or 1-32 according to grade of tests, this is simply a practical way of doing it. The true value of sugar depends upon how much sucrose you can get out of it. Now, the sucrose you can get out of sugar does not vary with the amount of sucrose which is in the raw sugar; it depends entirely on the amount of insoluble impurities, or rather the soluble impurities. The insoluble impurities have the same effect in proportion to their weight. If you have then a 96 testing sugar with 2 per cent. impurities, soluble impurities, you are only able to get 94 per cent. granulated sugar; the other 2 per cent. sucrose combines with the soluble impurities and forms molasses; that is, pound for pound the impurities prevent crystallization. The refiner, when he boils the sugar, takes 100 pounds of raw sugar, multiplies by the price and test of the sugar. He calculates how much granulated he can get out of that; multiplies by its price and adds to that the product of the price of the molasses and the amount of molasses he will get out of it; then he adds the expense of refining, and that entire expense, that entire sum is subtracted from the proceeds. The difference is the profit. Now, if you make that calculation you will find that as the sugar goes down its value decreases very rapidly, and when you come to sugar of such a coefficient as this grade—84—it is comparatively of little value to the refiner. The refineries in this country—most of them—are not prepared for the working of this sugar—very few of them. There are only two ways of doing it. One is

by an immense amount of bone-black, and the other is by first taking this low raw sugar and producing from it a partially refined sugar which is in a condition to go over the bone-black, and by the improvement may be made into granulated sugar. You can not take in a pan syrup under a certain purity and make granulated. It's a mistake, for you can not take cane juice, put it through the clarifiers and boil it into granulated sugar. It can not be done. It has been tried over and over again.

With concrete like this, the first thing to be done would be to partially refine—it would have to be brought up to a coefficient purity high enough to be passed over the bone-black, and boiled into granulated sugar. The cost to do that in a refinery, bringing it from the purity of this concrete of 84, say, up to 96, would be very much more in a refinery than it would be in a sugar house. I differ from Mr. Lillie entirely because I have had experience in both places. Now, in a refinery that sugar would have to be melted, reboiled and washed in the centrifugals at the expense of fuel, which is coal. In order to bring that test up higher, to say 96, you would take your juice, which is already in soluble form, boil it, the grain passing through the centrifugals at very little expense, because the amount of bagasse is more than is necessary to simply concentrate that juice. If you simply concentrate your juice in a sugar house you would then have a certain amount of bagasse over. Therefore, so far as the fuel is concerned, it would be cheaper to partially refine on a plantation than in a refinery. If it is cheaper to do this on a plantation than in a refinery, it is only natural to suppose that the planter is going to make more money, more profit, by making a higher grade of sugar than a lower grade, because the refiner would not pay a proportionate price. That is purely from a practical standpoint. So far as the method of manufacture is concerned, the use of the Lillie effect is fully up to every requirement that can be asked for, because it is known to be the most economical method of operation.

The Chairman—Then you agree with the statement made by Mr. Deming, that the additional work required for this sugar would be easy with the refinery.

Mr. Eastwick—I do not agree with him at all. It would not pay. The refiner wants to do all he can; he don't want the planter to do any refining. The refiners propose to make the planters pay for that refining—that partial refining. It costs him more to do it than the planter. I gather this simply from personal observation. You know that was tried in the form of these Manila sugars a few years ago—ten or fifteen years ago. They have to be taken into the refinery, broken up and melted; but in those days the standard of granulated was nothing like what it is today. What was called "standard granulated" ten years would be classed "off granulated" to-day. You can not add on the same low test solution in boiling the granulated sugar to-day that you could have even three or four years ago.

Hon. John Dymond—Was the test of melados as low as these concretes?

Mr. E. P. Eastwick—Yes, I think so; all these refineries used to have these melado cutters; these knives, simply to get it into condition to put into higher test.

Hon. John Dymond—That is true; I never thought of that; but twenty years ago thousands of tons of melado, which was simply our masse cuite—molasses boiled in the vacuum pan to a sharp crystal, the whole thing put right into hogheads were imported. I remember that it was remarked very freely at the time that these melado sugars were imported fraudulently. The molasses was drained out, the duty on the melado being lower than on sugar. Why they would bring into the country practically what was sugar, and yet only pay the melado duty.

If that has passed out of use entirely, or largely, it would simply indicate that the con-

crete idea has failed. I wonder I did not think of it before; but melado was one of the large manufactures in Cuba in 1875.

The Chairman—It was practically a concrete?

Hon. John Dymond—It was masse cuite, but it did not concrete. It was the same stuff but the grains were individualized. I have seen hogheads opened and the whole mass was crystallized to a clean sugar, but little molasses running out. Masse cuite—just like masse cuite running out in our sugar houses, but all boiled to a sharp grain.

Mr. E. P. Eastwick—Most of it went to New York; it seldom came here. Very few houses work low sugars; they are not prepared for it; have no bone-black. The way houses are equipped now it would be expensive to work low grades of sugar. There is another point, Mr. President, that is lost sight of in making low sugars, and that is the matter of freight. If you are going to send in to a refinery 76 testing sugar, or 73 testing sugar, you have there 27 parts which are water and impurities, all of which you are paying freight on. Now the refiner, when he buys that sugar, does not take that into consideration that it costs you 25 per cent. more to send it in, because you pay on impurities, than if you sent it in pure. If you take that in consideration you will find it makes a large difference. You see what I mean by that?

The Chairman—In other words, the higher your grade the cheaper your transportation becomes.

Mr. E. P. Eastwick—Because you pay on sugar; you don't pay on dirt. Another thing, the molasses has not the value in a refinery that it has on a plantation. While on a plantation the molasses produced will always bring a certain price, enough probably to pay for the package, in a refinery it is not always so—sometimes it does not even pay for the package. I have known times when it has been one of the hardest problems what to do with molasses. I know I have tried time and again to burn it. If we were allowed to throw it into the river it would probably be the cheapest way to get rid of it.

Dr. W. C. Stubbs—In calculating upon Mr. Dymond's figures as to the value of concrete there is a loss. An absolute loss without giving any value to molasses on the plantation on that test.

The Chairman—I was in hopes after the discussion had been closed that Professor Stubbs would have wound up by informing all the planters how to raise the percentage—the increase of production of concrete so as to get up to something like 200 or 250 pounds of sugar to the ton. Then we may have seen perhaps a small margin of profit; but the figures shown so far represent only an increase of 40 per cent. in making concrete—140 pound of concrete against 100 pounds of sugar; and there has been nothing showing any larger increase or larger percentage of increase than these figures.

Dr. W. C. Stubbs—I think even that too much.

The Chair—You think even 40 per cent. too much?

Dr. W. C. Stubbs—That is larger than I make it here.

The Chairman—You think there would be an actual loss at 40 per cent.?

Dr. W. C. Stubbs—Yes, sir.

Hon. John Dymond—Mr. Eastwick gave the reason.

Dr. W. C. Stubbs—But I can not help thinking that when we get to making concrete that there will be factories that will give more than 2½ cents per pound for a concrete that will contain 78 per cent. of sugar when 96 firsts are worth 4 cents.

I would ask Mr. Eastwick what sugar polarizing 80 would be worth?

Mr. E. P. Eastwick—I can not tell you, professor, because I really have not followed the price of sugar lately. The price of the open

kettle sugar is generally more than a corresponding second sugar, and that is due to the amount of impurities contained in the other. The open kettle contains more water, but less impurities which affect crystallization. Therefore, you can not get the same results as from open kettle sugar of the same test—I don't mean coefficient purity; I mean test.

Dr. W. C. Stubbs—What would a second sugar polarizing 80 to-day be worth compared with a 96?

Mr. E. P. Eastwick—I can not tell you without making a calculation.

Hon. John Dymond—About 1½ less than 96.

Mr. L. M. Soniat—When the concrete was made in my house I sent a sample of it to the Sugar Exchange. It was examined there, and Mr. Witherspoon was asked how much he would pay for that, and he said the price would be about 1¾ to 2 cents. But it was not worth as much then as it is now.

Dr. W. C. Stubbs—I regard this as a commercial question.

There being no further discussion the meeting adjourned, leaving the selection of a subject for the May meeting with the chair.

Are Consulting Engineers a Necessity or a Luxury?

This age is certainly one of specialties in all branches of industrial, intellectual and professional development, and this specializing is carried even to extremes in some cases, notably in certain manufacturing establishments; yet we can not condemn this practice, inasmuch as it reduces cost, and in certain cases has developed certain improvements which would have probably been greatly retarded but for the aforesaid specializing influence.

In the practice of sugar planters this specializing has been confined, as a general rule, to the employment of sugar makers, and, only in recent years, of chemists; such important work as the design of their extensive plants, where small economies might bring about very wonderful results, being left almost entirely to the duties of a consultant are only completed after he has determined by test or otherwise whether his client has received in full what he had contracted for, and his duties further obligate him to ascertain if the property, material, etc., so acquired is unencumbered through liens or privileges against the contractor.

The duties of the consultant as enumerated above certainly are important, onerous and honorable, and undoubtedly should not be entrusted to any one who has not the entire confidence of those who employ him; those duties further require the employment of well-trained men to fulfil them satisfactorily to all concerned. The question as to the extent of those duties brings to us the natural question, what should be the extent of the powers of a consulting engineer? as well as what should be the position of his employers toward him?

The answer to these questions is dependent upon a great many circumstances and conditions that are of a personal nature, and therefore can not be a direct one. The amount of power to be left in the hands of an employee is always dependent upon the relative amount of confidence existing between employer and employee, and in this case no radical change is to be expected; yet there is a difference, inasmuch as being an adviser, a judge, a representative of the employer, the consulting en-

gineer's position is more nearly that of a partner in business. If his advice and plans are accepted *in toto* his reputation is at stake; he is responsible for the result, and thus his entire capital is at stake. Some individuals concur in the advice of their consultant in every particular; others adopt their main suggestions, making changes to suit themselves in the details. These changes are often the cause of very serious results, which mean losses in efficiency, increase in outlay and consequent bad feeling. It is possibly best to abide by the engineer's decision in all points save the very minute ones, or those which can not affect the results one way or the other. The results are the concrete exponents of the ability of a specialist; they are the cause, the making of his reputation, and thus it is but natural to believe that to do the best will be his aim, specially so if the responsibility of the proposed course rests largely upon him. His powers of inspection should also be supreme, but those of rejection of material and workmanship might not be vested finally in him, for as a representative of the purchaser, as well as one of the parties interested in results his position would in some cases be awkward and inconsistent. However, it will be found in practice that there are very few cases where the engineer's judgment can not be accepted as the court of last resort, and in such cases a decision, a compromise, is more easily gotten, for the simple reason that every detail of the transaction has been carefully guarded and examined by one fully able to examine it.

The ability to examine brings us to the point where we can speak advisedly of the qualifications necessary in a consultant. The fact that one requires the services of a consulting engineer is only due to the lack of special knowledge; therefore, ability in that special branch is one of the undoubted requirements; an ability which should extend not only to that of a quick recognition of conditions of good design and thorough execution in order to obtain certain results under the above conditions, but should include also a thorough knowledge of the business methods generally in use among the contractors who are in the particular line of work.

His knowledge should be theoretical as well as practical, and he should be well acquainted among manufacturers so that he might make specifications that will not place his client to unnecessary expense in the manufacture of special machinery or of machinery which does not accord absolutely with the general designs of the established standard. However, this acquaintance does not and should not involve such relations as would tend to bias his judgment; he should be untrammelled in the exercise of his judgment by all considerations, and especially the one of being in the employ of any manufacturing concern or one of its licensees.

Thus, ability is not the only requisite; if a power of attorney is given, the person who gives it is particularly careful to give it to one who is reliable and trustworthy; in the same manner, the consulting engineer must be reliable and trustworthy. His honesty must be

above reproach and he should be conscientious to a superlative degree; personally and professionally he must enjoy such a reputation that his motives shall never be questioned.

In addition, if he should possess a pleasing manner, considerable tact and common sense by which he shall be able to so advise and direct, that his judgment shall prevail without raising in the heart of the one whose opinion is discarded any feeling of resentment, he will increase his value and opportunities as a consultant.

The several statements made above answer quite completely the question of necessity in the employment of a consulting engineer, but as experience is, after all, the best teacher it might be well to note one of many experiences demonstrating the usefulness of their advice, especially when it is remembered that the experience is one of recent origin.

The writer was called upon to examine and make a report on the installation of an electric light plant in a certain refinery in the State. No engineer had been employed and the cost was fair as compared to the size of the plant, being a little less than \$3000. Upon examination it was found to be a very poor affair; in fact, when compared to another where an engineer had been employed, one of precisely the same capacity and of very small additional cost, it was apparent, not only to the expert, but to the owners of the first plant, that they had lost \$450 to \$500 in the character of the material and workmanship of this plant by not availing themselves, at the outset, of the services of an expert in that particular branch of engineering.

This little experience seems strange when it is stated that in both cases the same contractor was employed, and further shows the restraining influences which an engineer can have upon the contractors and their methods of working.

There is still one other reason which should be urged in favor of the employment of a consultant in engineering work of any kind and that is urged out of fairness to the bidders and contractors. When tenders are asked upon a definite statement made by the engineer, explaining the conditions and results expected as well as the manner in which those results are to be obtained, then every man offering to do the work for a stipulated price is placed on the same footing. It is a fair and equitable method and one by which the purchaser can by a simple comparison and without going into the merits of the machines or the ability of the contractor determine the lowest-priced man for the same class and character of work.

It is possible that the main question has not been answered affirmatively in a very positive manner, but a careful reading of the reasons *pro* and *con* will undoubtedly prove to the owner the absolute use and necessity for such a profession in a number of cases, and further shows that in all cases there is a great probability ranging close on to a certainty that the employment of the right man would be accompanied by the ultimate saving of money in time, trouble and oftentimes workmanship.

H. J. MALOCHÉ.

The Actual Position of the Cane Sugar Industry in Java.

BY H. C. PRINSEN GEERLIGS.

According to Dickhoff's calculations in the *Archief voor de Java Suikerindustrie*, 1897-98, the total area under cane in Java amounted to 92,748 bouw, or 162,174 acres in 1896, yielding a quantity of 8,282,351 pikuls, or 503,516 long tons of first sugar and 740,363 pikuls, or 44,917 tons of sack sugar, which,* if we reckon two parts of sack sugar equal to one part of first sugar, gives the equivalent of a total production of sugar for 1896 of 8,652,532 pikuls, or 525,974 tons, or 93.5 pikuls of sugar per bouw (3 tons 4 cwt. 97 lb. per acre). For the year 1897 we find 97,074 bouw, or 170,480 acres under cane, calculated to yield a crop of 9,483,634 pikuls, or 576,496 long tons, equal to 96.6 pikuls per bouw (3 tons 7 cwt. 83 lb. per acre).

In the year 1895 an average of 992 pikuls of cane were harvested per bouw, equal to 34 tons 10 cwt. of cane per acre, against 884 pikuls of cane per bouw, or 32 tons 11 cwt. per acre in 1896, causing in that latter year the crop to be less than its predecessor. This was, however, partially counterbalanced by a better output of sugar from the canes, which was 9.79 parts of sugar from 100 parts of cane in 1895, against 10.55 in 1896. Owing to this the yield of sugar did not show such great differences as that of the cane, being 97 pikuls in 1895 to 93.5 in 1896. According to the same statistics of Dickhoff, 525,974 tons of the 1896 crop were furnished by the 188 factories, yielding an average production of 2800 tons per factory; in the year before, a quantity of 576,190 tons was made in 195 factories, or almost 3000 tons per factory. The largest production was made in 1896, at the Tjomal estate, viz., 103,500 pikuls, or 6496 long tons, and the smallest at the Kreet estate, of 1000 pikuls (60 tons). Seventy-three estates made crops of over 50,000 pikuls (about 3000 tons), 23 only made under 25,000 pikuls, causing the half of the whole number to remain between 25,000 and 50,000 pikuls.

The highest figure for sugar obtained at an estate in Java during the whole crop is of 154.4 pikuls per bouw, or slightly under 5.6 tons per acre, on an estate having some 1000 acres under cane; the highest figure reported about the crop of cane from one single field is 2300 pikuls per bouw, or 86 tons per acre. The maximum output of sugar from cane during a period covering a whole grinding time has been made in the Poerwodadi factory, with a mill plant, amounting to 13.99 parts of sugar from 100 parts of cane, in 1894; the largest figure got in a factory provided with the diffusion system was 13.50 per cent. The average saccharine content of the cane is about 14 per cent., 18 per cent. being the maximum figure.

The cost of production varies very much at the various estates and differs from 3.79 francs to 9 francs per pikul (£5 3s. to £12 6s. 6d. per long ton). After the figures of Mr. N. P. van den Berg, director of the Java Bank, the prime

* Sack sugar is called the concrete last molasses, which are boiled very close and packed in bags of palm leaves. These are stored on large heaps and occasionally turned over so as to allow the molasses to drain off and to keep the sticky mass of sugar crystals and molasses within, which is sold as sack sugar for brewing purposes and for food.

cost of one pikul of sugar was in 1885, 8.06 francs; in 1886, 7.78 francs; in 1887, 6.63 francs; and in 1888, 6.30 francs, exclusive of rent for capital or debt. It now amounts to the same figure of 6.30 francs (£8 12s. 8d. per ton) delivered at the purchasers' stores and inclusive of rent of debt, with a fair allowance for wear and tear and new machinery.

These figures may be specified as follows:

	Per pikul of sugar.	Per ton.
Cost of canes	£2.25	£8 1 8
Salaries	1.00	1 7 5
Transport of canes	.40	0 10 11
Cost of manufacturing	.90	1 4 8
Wear and tear and new machinery	1.00	1 7 5
Rent and commission	.50	0 13 9
Transport of sugar	.25	0 6 11
Total	£6.30	£8 12 9

The greatest difference in cost price of sugar between the various factories is found in the item "cost of canes," which in one case often is much less than in another—all other expenses being in well-conducted factories fairly the same. Cultivation and manufacturing, which in Java are both in the same hands, have reached a high standard of development, and can stand the comparison with any other sugar-growing country. On the other hand, Java sugar does not enjoy any protection from the mother country, nor from any other State, as is the case with sugars of many competing countries. The export duty of 0.15 francs per 100 kilogrammes, which the Java Government laid on the sugar, has only lately been abolished. No sugar is imported, and the consumption of refined or grocery sugar is very trifling, amounting, according to "Kobus Jaarboek voor Suikerfabrikanten," 1896, 123 only to 29,407 tons a year for the whole archipelago, numbering about 30,000,000 inhabitants. This is due to the fact that the native population makes sugar on a large scale from the sap of the sugar and cocoa palms, and prefers these sugars along with the home-made concrete from cane juice to the best and whitest crystals.

The exports over the last years are divided as follows in long tons:

	1893-94.	1894-95.	1895-96.	1896-97.
Europe.....	105,557	131,586	306,778	293,515
Australasia..	46,974	32,684	15,007	18,408
China	147,216	148,490	141,383	100,338
United States				
of America	169,921	135,660	116,735	61,177
Other coun-tries.....	26,959	37,631	23,356	25,996
Total.....	496,627	486,051	603,259	498,434

The molasses remaining after the extraction of the sugar are generally exhausted to such a degree that they can not be used any more and are thrown away; only a small percentage of them is used for making arrack, a kind of rum.

Another Large Irrigation Plant.

Before many years have passed into history, this parish will be known as the irrigation centre of rice culture in Southwest Louisiana. Scarcely a day passes but the news of the inauguration of some mammoth plant for the

irrigation of rice is made known. The latest is an incorporation with a capital of \$100,000 fully paid in, organized for the purpose of irrigating and farming some 4000 acres of land recently purchased by the company, and lying on Bayou Chene, south of Welsh. Mr. C. A. McCoy, of Lake Charles, is the prime mover in the enterprise. The other incorporators are P. B. Haber, of Fond du Lac, Wis., J. P. Haber, D. C. Richie and G. H. Cook, of Acadia parish, and J. Rosholt, of Trail county, North Dakota. The domicile of the new company will be at Jennings. The officers of the new company selected at the first annual meeting the other day are P. B. Haber, president; C. A. McCoy, vice president; J. P. Haber, secretary and treasurer.

The Providence lands of the southwestern part of this State are fast becoming converted into the most productive and profitable agricultural lands of the United States. Other irrigating plants will probably be erected in the near future, and the big canals on Lake Arthur are getting in shape to water many thousands of acres this coming season.—*Westlake Herald*, April 7.

Trade Notes.

Hauptman & Loeb.—These gentlemen advise us that business with them is brisk and the outlook excellent. Among the numerous contracts they have recently secured was one for a nine-foot double effect from Milliken & Farwell, and one for an eight-foot double effect from Milliken & Rutledge.

The Stirling Water Tube Boiler.—Elsewhere in this issue will be found the advertisement of this well-known steam generator, which is fast becoming so popular among the sugar producers. Nothing succeeds like success, and success, that is, enduring success, is scarcely ever based upon anything but merit. In this connection it is interesting to note that we are in receipt of a letter from the Stirling Company, in which they advise us that their business has increased to such an extent as to call for the erection of additional buildings and the installation of additional machinery. An extension of 240 feet, about as long as one of our city blocks, is now being added to their boiler shop, and it will be equipped with traveling cranes, new and most modern hydraulic riveters, radial drills, and so forth. When these shops are completed, they say they will have the largest establishment in the United States devoted solely to the manufacture of water tube boilers. This is success of a solid sort, and it would certainly appear to be due to the excellence of their apparatus, as many of the new orders they constantly receive are from those who have already had their boilers in operation, and have given them thorough and most rigid tests under all conditions.

The Stirling boiler is handled locally, as most of our readers know, by the C. S. Burt Company, Limited. These gentlemen can not be excelled as courteous, well posted, and expert machinery men, and we are confident that part of the great success the Stirling

boiler has met with in Louisiana is due largely to the excellent way in which the local agency has been handled, for even a good thing has to be well introduced.

The Political Science Quarterly.

This extremely valuable quarterly, edited by the faculty of political science of Columbia University, and published by Messrs. Ginn & Co., of Boston and New York, in its No. 1 of volume 13, recently received, offers a table of contents that will be of great interest to the student of political sciences as well as to every one interested in all modern historical research and economical investigation. The March issue in its contents includes the following valuable papers:

The Referendum in California, by S. E. Moffett; the Consular Service, 1776-1792, by Prof. E. R. Johnson; the American Revolution, by Prof. H. L. Osgood; Gold Monometallism in Japan, by J. Soyeda; Capitalism on Trial in Russia, by N. I. Stone; Discount Rates in the United States, by R. M. Breckenridge; Meltzen's Siedelung und Agrarwesen, by Prof. W. J. Ansley. Reviews: Pearson's The Chances of Death; Von Mary's Statistik und Gesellschaftslehre, II; Ratzenhofer's Wesen und Zweck der Politik; Levasseur's L'Enseignement Primaire; Bucher's Arbeit und Rhythmus; Schanz' Neue Beiträge zur Arbeitslosen-Versicherung; Speir's Street Railway System of Philadelphia; Hopkins' Street Railway Problem in Cleveland; Howe's Cleveland in Relation to the Street Railway Question; Report of the Bureau of Labor Statistics of Illinois on Franchises and Taxation, etc.

Subscriptions should be forwarded to Messrs. Ginn & Co., 70 Fifth Avenue, New York, or 9 Tremont Place, Boston, \$3 per annum.

Japan Rice.

J. J. Thomas showed us, on Thursday afternoon, the through bills of lading on 300 sacks of Japan seed rice the freight upon which was only 90 cents per 100 pounds from Kobe, Japan, by vessel to San Francisco, thence by rail over the Southern Pacific Railroad to Crowley. This is the lowest freight rate that was ever given from Japan to Crowley.

Mr. Thomas will plant 150 sacks of this seed rice on his farm. The balance is already spoken for. Farmers can be assured that this rice is genuine imported seed because as soon as it was unloaded from the vessel that brought it from Kobe, Japan, and placed on a car, a custom-house official placed a government lock and seal on the car so that it could not be opened until reaching its destination in Crowley by the railroad agent.—*Crowley Signal*.

Should the United States Produce Its Sugar?

Efforts are being made in the United States to extend the growth of sugar-producing plants by ascertaining—through scientifically conducted research at State experiment stations and by private enterprise, under the direction of the Federal and State governments—where such plants will flourish the best, to the end that we may as a nation become inde-

pendent of other countries in this regard * * * and distribute among our own people the immense sum of money that is now sent abroad to pay for sweetening materials. * * * This subject should be discussed from the standpoint of the farmer rather than from that of the political economist. The farmers of our country produce from the soil grains, cotton, tobacco, vegetables, fruits, horses, cattle, hogs, sheep, various animal products and the like; and if we add to our farm system any crop that yields an article of common use, is not exhaustive of plant food, and whose by-product is valuable in making meat and dairy products, it will find favor with producers. There are very few crops, or manufacturers of them, of which this can be said so emphatically as it can be said of sugar beets. The grains are well-known soil robbers. They carry from the soil, nitrogen, potash, phosphoric acid, lime, magnesia, and other elements of plant food. Tobacco is particularly severe in this regard, because none of its by-products are fit for animal food, and what is sold from the farm carries away so much mineral plant food that most soils are soon exhausted and can only be restored by commercial fertilizers, the purchase of which is out of the question in many parts of the United States. Meats take away comparatively little plant food from the soil, compared with the money value.

The cotton plant is not exhaustive if the stalks are ploughed under and the seed is returned to the soil, either directly or through the instrumentality of domestic animals. The oil of the cotton seed may be sold without taking any plant food from the farm, as it comes from the atmosphere through the leaves of the plant. Butter is also harmless in this respect, and does not impoverish the land on which the cow grazes. Sugar is as harmless as oil and butter; it comes from the carbonic dioxide of the atmosphere. If the sugar beet is hauled to the factory and the pulp taken back to the farm no plant food is lost to the soil.

The writer grew beets by the acre for stock feed from 1891 to 1896 at the Iowa Agricultural College, and found the enterprise profitable for that purpose alone. All domestic animals are benefited by daily rations of roots in winter when they have no access to pasture—the young animal, the breeding animal and the fattening animal alike find them grateful. After the sugar is extracted the pulp contains all the plant food furnished by the soil and is substantially as valuable as fodder for domestic animals as the beet is before the sugar is extracted. The fodders of our rations are nearly all too carbonaceous and require mixtures of nitrogenous by-products to make them suitable for animal growth or milk production. Here, then, we have a plant that, aside from the sugar it contains, makes a valuable food for our domestic animals and is capable of successful cultivation in many of our States. It fits into our farm system conveniently, because its planting season is earlier and its harvest time later than that of corn, and not only serves a double purpose as an animal nutrient, but holds out the liveliest hopes that its adoption will keep at home \$100,000 through the value of its sugar content alone.—*Secretary of Agriculture Wilson, in March Forum.*

Sugar Lands in Florida.

Long before the beginning of this century there were in south Florida four widely scattered sugar plantations, with thousands of acres and hundreds of slaves. But the upheaval of war destroyed these swarming hives of industry, the rank tropical vegetation encroached upon the fields, rapidly reducing them to an aboriginal jungle, and to-day the tourist, wandering where no foot of white man has penetrated perhaps for a quarter of a century, comes suddenly upon great water-wheels, silent and crumbling to ruins, broken smokestacks in the forest, and the sugar kettles, now the abode of reptiles and alligators.

What has once been can be again. When by the old, wasteful processes of the roller mill and the open kettle only 50 per cent. of the cane juice was saved and converted into sugar, and yet money was made only less abundantly than the Spanish pirates got their sacks of gold, why should not money be made again now, when the diffusion process and the evaporation pan save practically all the juice?

The United States Department of Agriculture established a sugar experiment station at Runnymede, Osceola county, and for four years the money of the nation was with energetic fatuity poured into a rat-hole. On an underdrained bog there were expended enormous quantities of fertilizers and nostrums, plenty of science and little common sense. There were large expenditures for machinery and apparatus, which were never used for lack of sugar cane to work upon, and after four years of failure the department saw fit to abandon the enterprise and assign the following reasons: "After consulting the best sugar experts in the county, it was decided that the undertaking was a hopeless one, at least at this place and under the conditions that prevailed at this station. Nothing remained, therefore, except to abolish the station and sell the equipment," which was done, and the government chemist retired to West Palm Beach and engaged in a scheme to furnish milk to the great Flagler hotels on the Flagler system from a dairy conducted upon a naked sandridge.

Only a few miles from this government station, namely, at St. Cloud, the Disston sugar mill was built, at an expense of about \$350,000, upon lands over which the waters of a lake once rolled from 4 to 7 feet deep, on beds of muck in which a staff could be thrust down 8 or 10 feet. It was so soft that the mules had to be shod with muck shoes bigger than a dinner plate. A field of 100 acres was planted on this reclaimed land in 1886-87, and this was increased to 500 acres the following year, when the best crop was found to have yielded 40 tons of sugar cane per acre. But, owing to unfriendly sugar legislation in Washington, the enterprise has languished until lately, like the sister establishments of Louisiana. The past season there were manufactured from 357½ acres of cane 1,412,909 pounds of sugar, an average of 4037½ pounds of sugar and 1600½ pounds of molasses per acre.

In that part of the State there are vast areas

of soil as fertile as the alluvial deposits of the Mississippi or the Nile, with a climate similar to Cuba's, and with a season like the Cuban in every respect. These lands cover many square miles, and 1,000,000 acres could be readily prepared for cane culture for much less than the average cost of clearing, leveling and ditching an equal area in Louisiana. These lands will produce an average of two tons of refined or pure sugar per acre, or the full amount of the sugar importation for 1896 (1,948,000 tons) into the United States.

Besides these muck or reclaimed lands there are millions of acres of "mulatto" hammock or grayish sand in the piney uplands that will produce sugar and syrup which, when properly made, is equal to the best Vermont maple molasses; but these lands require heavy "cowpenning," and are therefore generally run by the farmers in "patches" for a home supply only.—*S. Powers, Jacksonville, Fla., in Drainage Journal.*

Florida Sugar.

Experts claim that Florida could supply every pound of sugar used in this country, and we have every reason to believe that it could, but not even the experts know how much sugar or its equivalent is produced in the country homes of this State. At the homesteads of the old settlers the cane is still crushed, the juice filtered through cloths into a barrel as it flows from the mill, and then boiled in iron pots.

But the sugar so obtained is a brown, sticky substance, rich in sweetness, but not pleasing to sight or touch. Therefore the Floridian has pushed his "syrup" on the market and bought the refined product obtained from it, an exchange costly to him because of expensive processes involved in the transformation, and the double transportation and the great capital that must be commanded by the inception of the refineries.

This condition is now completely changed, and the individual producer is again "on top." For Professor Stockbridge, the chemist at the State Agricultural College, has made a discovery which will alone richly repay to our people all the cost of that institution. The following facts have been thoroughly tested by experience, admitted by experts, and will carry a valuable lesson to every homestead in the State.

If the cane juice as it flows from the mill be filtered through common Spanish moss, green from the trees on which it grows, and then boiled even in an open iron vessel till crystallization occurs, the sugar will drip white, in beautiful crystals, that need only to be crushed to make the "coffee sugar" of commerce. The color is slightly tinged with a cream tint, and it is sweeter than need be, but these come only from the absence of *terra alba*.

Now, in these facts, rightly used, there lies a declaration of independence for every Florida farmer, and still another proof that brains applied in our climate and soil need pay no tribute to Cuba or Hawaii, or any power or potentate on God's footstool. No new principle is involved. Brown sugar is unsightly

because it is not clarified—the moss is the best clarifier for eliminating impurities and making a larger per cent. of the sugar available for household use in an agreeable form.—*Times-Union and Citizen.*

Legislating Against Glucose.

Bills have recently been introduced in various State Legislatures, directed particularly against the use in food products of glucose for mixing purposes. Examples of these measures are the Finn bill, introduced in the New York State Legislature, and the Daly bill, which has been introduced at Trenton. Both appear on a merely cursory perusal essentially similar in effect. The New Jersey bill differs from the New York in that it does not prohibit the use of glucose or grape sugar in the manufacture of beer or ale, and does not prohibit the sale or exposure for sale of "refuse" from glucose or grape sugar factories, otherwise the bills seek to require to be branded as "adulterated" wheat flour if mixed with corn flour, or any foreign substance; candy, licorice or confectionery manufactured in whole or in part from glucose or grape sugar; cane molasses, cane syrup, maple syrup or maple molasses, mixed with glucose or grape sugar syrup; preserves, jellies or other articles of food manufactured in whole or part with the aid of glucose or grape sugar or glucose syrup or grape sugar syrup.

Glucose manufacturers, without exception, feel that misapprehension exists among interests that are not identified with the practical use of their product. There should, they claim, be some basis for action against glucose on the ground of public welfare, and furthermore that the term "adulteration" should not be confounded with the term "mixing."

An expert on glucose matters, when questioned as regards the effect of the bills, urged that each bill ought to have contained a preamble reciting the complaints of consumers of the articles to be branded "adulterated." "Especially," he continued, "ought the unwholesomeness of glucose, grape sugar, corn starch and corn flour to have been dilated upon. The bills are silent on these points, and yet they propose to make crimes of commercial acts which for twenty-five years or more have built up, sustained and perpetuated the great glucose, starch confectionery, syrup, ale, beer, jelly foods, and many other important interests in the country, without fault being found by the consumer. Bills similar to those under review are not unfamiliar to glucose manufacturers in the United States. In seventeen or eighteen years periodic raids have been made upon glucose in Congress, in State legislatures, in newspapers, and by boards of health under various guises, as though glucose were a product that ought to be condemned without a hearing. All such attempts have thus far failed, because glucose has consorted with honesty and intelligence, while the bills, resolutions and investigations in opposition were founded either upon ignorance or upon motives which could not stand the light.

In 1882, when the glucose industry was comparatively in its infancy in this country, doubts were raised as to the purity and health-

fulness of glucose and grape sugar, and the questions involved were referred by the Commissioner of Internal Revenue to the National Academy of Sciences, which is composed of fifty members, comprising among the most eminent in every branch of science in this country. The academy is a government institution, and its duty is, whenever called upon to do so by any department of the government, to investigate, examine, experiment and report upon any subject of science or of art which shall be submitted to it. The academy appointed a committee of eminent men from among their number to make an investigation. This committee, after an investigation extending over a period of two years, in a voluminous and exhaustive report, said in part:

"Starch sugar represents one distinct class of sugars, as cane sugar does the other—the former being obtained naturally from the grape, as the latter is from the cane and the beet. Starch sugar, which is a term chemically synonymous with dextrose and glucose, when pure has about two-thirds the sweetening power of cane sugar. No impurities, either organic or inorganic in character, were detected in any of the samples examined.

"The elaborate experiments upon the fermentation of starch sugar would seem to be final on the question of the healthfulness not only of glucose itself, but also of the substances produced by the action of a ferment upon it. Large quantities of a concentrated extract from the fermentation, representing from one-third to one-half a pound of starch-sugar, were taken internally by the experimenters, and this repeatedly, without the slightest observable effect. This result, rigidly applied, holds, of course, only for those sugars which, like this, are made from the starch of Indian corn or maize.

"The manufacture of sugar from starch is a long established industry, scientifically valuable and commercially important. The processes which it employs are unobjectionable in their character and leave the product uncontaminated.

"The starch sugar thus made and sent into commerce is of exceptional purity and uniformity of composition and contains no injurious substances. Though at best having only about two-thirds the sweetening power of cane sugar, yet starch sugar is in no way inferior to cane sugar in healthfulness, there being no evidence before the committee that maize starch sugar, either in its normal condition or fermented, has any deleterious effect upon the system even when taken in large quantities."

"In 1894, after the expiration of ten years from the time of making their previous investigation and report above quoted from, these eminent scientists gave me separate individual certificates reiterating their former opinions as expressed in their report regarding the purity and wholesomeness of glucose and grape sugar. Other chemists and scientists in this, and many other foreign countries, after most thorough investigations, have arrived at similar conclusions, so that it would seem needless to longer attempt to fortify glucose against attacks which are as unreasonable as they must be futile. Improved processes and

appliances in the manufacture of glucose and grape sugar have kept pace with inventions in other industries, so that the product to-day is in many respects superior to that put upon the market twenty or even ten years ago.

ADULTERATION VS. MIXING.

"In considering all the questions involving adulteration heed should be given to the meaning of the term adulteration. As commonly used, there is the hint of a taint, something is debased or deteriorated. Or possibly a cheaper article is mixed with a dearer one, in order to get a better price for that of less value. If any of these tests or definitions are applied to the great bulk of the syrups made of glucose and cane syrups or molasses, then there is no adulteration. The best cane syrups, as well as those of inferior grades, including molasses, will contain a considerable percentage of glucose in their natural state. None of the high grade light colored cane syrups are ever mixed with glucose. Only the black or dark brown molasses is used for mixing with glucose, and until the advent of cheap corn, and consequently comparatively cheap glucose within the past two or three years, glucose as a rule has been dearer than the molasses with which it was mixed. Even at the present time there is little difference in price between the two, although molasses is not in full supply, and is consequently higher in price than usual. The syrup mixers take about all the 'black strap' of every dark-colored molasses that is offered, and with it mix glucose pure white in color, or nearly so, and of about the same or heavier gravity. The proportion of glucose varies, and hence no hard and fast rule can be given. The resultant product after mixing equals in color and brilliancy the best grades of cane syrups. The black molasses has been changed into golden drips. Although not quite as sweet as cane syrup the mixed syrup is just as palatable and has none of that sickening taste which sometimes palls upon the appetite. Glucose readily absorbs flavors and is not prone to candy or partly crystallize, hence it is that it is so much in favor for preserves and jellies. With an industry so long established and so large as that of mixing glucose and cane syrups and molasses, it would seem a fair question to ask—who wants the bills to become laws? Who has asked for them? What good can they accomplish? Mr. Flynn, in his bill, proposes that each receptacle for containing mixed syrup shall carry with it an analysis stating the percentages of each substance composing the same. If by this the bill means to require that the analysis shall show how much glucose has been added to the cane syrup or molasses with which it is mixed, then the analysis must fail, because there can be no way of determining how much free glucose was in the cane syrup or molasses before mixing.

"If years ago all our candy and confectionery were made from cane sugar or syrup, the question may be asked, why not now? Why is glucose used at all? The confectioners themselves can better answer the question than I can, but there must have been reasons

[CONTINUED ON PAGE 271.]

APRIL 23.

WEEKLY MARKET REPORT.

1898.

SUGAR.	April 13.	April 18.	April 19.	April 20.	April 21.	April 22.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	3 1/2 @ 3 3/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 7/8 @ 2 1/4	Quiet.
Strict Prime	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 3/4 @ 2 1/4	
Prime	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 1/2 @ 2 1/4	
Fully Fair	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 1/2 @ 2 1/4	
Good Fair	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 1/2 @ 2 1/4	
Fair	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	3 1/2 @ 3 1/4	2 1/2 @ 2 1/4	
Good Common	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	2 1/2 @ 2 1/4	
Common	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	3 @ 3 1/4	2 1/2 @ 2 1/4	
Inferior	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	2 1/2 @ 2 1/4	
Centrifugal.								
Plant'n Granulated.	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	— @ 4 1/2	— @ —	— @ —	Strong.
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 1/2 @ —	
Choice White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Off White	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	— @ —	
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	4 1/2 @ —	8 1/2 @ 8 1/4	
Prime Yellow	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	8 1/2 @ 8 1/4	
Good Yellow	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	4 @ 4 1/4	8 1/2 @ 8 1/4	
Seconds	2 1/2 @ 3 1/4	2 1/2 @ 3 1/4	2 1/2 @ 3 1/4	2 1/2 @ 3 1/4	2 1/2 @ 3 1/4	2 1/2 @ 3 1/4	2 1/2 @ 3 1/4	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	Dull.
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ —	Dull.
Choice	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ —	
Strict Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ —	
Good Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ —	
Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ —	
Good Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ —	
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ —	
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ —	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ —	
Inferior	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ —	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Good demand.
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	4.90 @ —	4.90 @ —	4.90 @ —	4.90 @ —	4.96 @ —	4.96 @ —	4.22 @ —	
Standard A.	4.78 @ —	4.78 @ —	4.78 @ —	4.78 @ —	4.84 @ —	4.84 @ —	4.10 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	11s. 8d.	10s. 9d.	Firm. Active.
A. & G. Be-	9s. 0 1/2 d.	9s. 0 1/2 d.	9s. 0 d.	9s. 0 1/2 d.	9s. 1 1/2 d.	9s. 8d.	8s. 7 1/2 d.	

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 7/8	Strong
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 7/8	
Standard Granula'd	— @ 5.18	— @ 5.18	— @ 5.18	— @ 5.18	— @ 5.18	— @ 5.18	— @ 4 7/8	
Dandy A.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Kosetta Ex. C.	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Crystal Extra C.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Apr. 18	Tons	307,900
At four ports of Great Britain to	Apr. 9	"	77,500
At Havana and Matanzas to	Apr. 18	"	109,500

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APRIL 22, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	23	6,948
Sold	23	8,809

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO APRIL 22, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	22,196	1,888,212
Sold	22,196	1,864,711
Received same time last year	31,183	1,215,192

APRIL 23.

WEEKLY MARKET REPORT.

1898.

RICE.	April 16.	April 18.	April 19.	April 20.	April 21.	April 22.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLO- OF WEEK.
ROUGH, 100 bbl.....	8 00@4 85	2 25@4 75	2 25@4 75	2 25@4 75	2 25@4 75	2 25@4 75	— @ —	Strong.
CLEAN, Fancy.....	5 1/2@6 1/4	5 1/2@6 1/4	5 1/2@6 1/4	5 1/2@6 1/4	5 1/2@6 1/4	5 1/2@6 1/4	5 1/2@6 1/4	
Choice.....	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	
Prime.....	4 1/2@5 1/4	4 1/2@5 1/4	4 1/2@5 1/4	4 1/2@5 1/4	4 1/2@5 1/4	4 1/2@5 1/4	4 1/2@5 1/4	
Good.....	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	Strong.
Fair.....	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	
Ordinary.....	3 1/2@4 1/4	3 1/2@4 1/4	3 1/2@4 1/4	3 1/2@4 1/4	3 1/2@4 1/4	3 1/2@4 1/4	3 1/2@4 1/4	
Common.....	3 1/4@3 1/2	3 1/4@3 1/2	3 1/4@3 1/2	3 1/4@3 1/2	3 1/4@3 1/2	3 1/4@3 1/2	3 1/4@3 1/2	
Inferior.....	2 1/4@3	2 1/4@3	2 1/4@3	2 1/4@3	2 1/4@3	2 1/4@3	2 1/4@3	
No. 2.....	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	
BRAN, 100 ton.....	10 00@10 50	10 00@10 50	10 00@10 50	10 00@10 50	10 00@10 50	10 00@10 50	10 00@10 50	
POLISH, 100 ton.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	17 00@18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APR. 22, 1898.

	SACKS ROUGH.	BELS. CLEAN.
Received.....	298	1,884
Sold.....	841	1,874

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO APR.
22, 1898, COMPARED WITH LAST YEAR, SAME TIME

	SACKS ROUGH.	BELS. CLEAN.
This year.....	451,686	6,862
Last year.....	375,695	9,088

Sugar.

The sugar market was strong at the end of the week, and the demand was excellent, with rather meagre receipts from the plantations.

Molasses.

No open kettle goods in first hands. Centrifugals dull.

Rice.

The rough rice market was strong at the end of the week, but there was little doing. Clean was strong, with offerings restricted; all put forward being quickly taken at full prices.

Legislating Against Glucose.

[CONTINUED FROM PAGE 269.]

more cogent than the cheapness of glucose or the dearness of cane sugar. Perhaps too much sweetness may pall the appetite; the confections may not keep as well or for so long a time without deteriorating; possibly the all-sugar candy is not as wholesome and as easily digested as that in which glucose plays a part; and even the public taste may demand some glucose rather than all-cane sugar. Whatever the reasons, glucose has formed no inconsiderable part of our confectionery for thirty years or more; it is with us now, and it has come to stay, the arbitrary provisions of legislative bills to the contrary notwithstanding. Two of the kinds of candies with which we are well acquainted are ordinary gum drops and caramels, both of which contain a large percentage of glucose. The interior portion of a gum drop is composed principally of glucose with flavoring added, and the outside coating is cane sugar or beet sugar. We all know that the thin outside is sweeter to the taste than the inner part, but the combination gives a fair illustration of the difference in sweetness between glucose and refined cane sugar.

"Obviously the intent and effect of these bills must mean interference with the domestic

glucose and starch industries, and not to their benefit. Some people in the United States seem to think that they have a special mission to tear down; and they have little care about reconstructing the wrecks they may cause. As soon as great industrial enterprises are fairly under way, excessive zeal in favor of old methods and ancient products rallies opposition. The cleaving unto custom and the bowing down to the heirlooms of our ancestors would never have made us a nation of inventors and the greatest of all nations in manufacturing and agricultural enterprise. The Department of Agriculture in Washington has done as much as any other to oppose glucose, when it ought to have been always friendly, because it is supposed in some way to have the interests of farmers at heart. The following figures regarding the glucose and corn starch industries in the United States, although partially estimated, may be taken as approximately correct:

Number of glucose and starch factories.....	29
Daily capacity, bushels of corn.....	155,000
Annual capacity, bushels of corn.....	48,360,000
Acres of land required to raise corn at 26 bushels to the acre.....	1,860,000
Farmers required to raise corn, three men per hundred acres.....	55,800
Annual capacity, pounds.....	1,450,800,000
Value produced annually.....	\$25,000,000
Laborers employed in factories.....	10,500
Amount of wages paid annually.....	\$4,900,000

—New York Journal of Commerce.

St. Mary.

Field work is being pushed forward as rapidly as possible. Laborers are in demand and the work of giving the cane and corn the preliminary touches necessary to send them forward. Throughout St. Mary the crops are splendid and in fine condition. The stubble thus far is much superior to the spring plant, but that put down in the fall is up and going. The early corn in many places will have to be replanted, on account of being stunted by frosts and cold weather of the last two weeks. The winter was so mild that planting and cultivating were commenced a great deal earlier than usual, in consequence of which the recent cool spell found all vegetation more than ordinarily advanced.

Mr. J. W. Barnett's new residence on Shady-side plantation will be much finer than its predecessor. In fact it will be the costliest residence in St. Mary. The building alone, it is said, will cost \$18,000, which means much of a house in these days of cheap lumber, brick and hardware. The finish and trimmings will be the most elegant, while the furniture to fill it will represent the most beautiful made in America.—Franklin News, April 14.

Personal.

Hon. James A. Ware, of Belle Grove plantation, in the parish of Iberville, was a recent visitor to New Orleans and registered at the St. Charles Hotel, which is his customary stopping place.

Mr. M. J. Kahoa, one of the leading planters of Baton Rouge parish, where he operates the fine Westover and Allendale places, was in the city on a visit a few days ago and put up at the Hotel Grunewald.

Mr. J. E. Caldwell, general manager and president of the Cumberland Telephone Company, of Nashville, Tenn., was in the city during the past week and registered at the St. Charles Hotel. He was accompanied by Mr. L. Hume, the secretary and assistant general manager of the company.

Mr. Harry Kean was the sugar boiler during the past crop season at the Pecan plantation, and with keen judgment turned out the finest kind of results. Pecan's reputation for fine sugars, syrups and molasses was established and is maintained by putting and keeping the right men in the right places.

Mr. G. A. Russell, of St. Mary parish, accompanied by several members of his family, registered at the Grunewald Hotel on Wednesday last, having come up to pay the city a short visit.

Mr. Joseph A. Grace was in the city on a visit a few days ago and registered at the Hotel Denechaud. Mr. Grace is one of the leading notaries of Plaquemine, is a well posted man on all matters relating to sugar planting, and occasionally writes gracefully and entertainingly for the press.

Mr. L. E. Callrey, of St. James parish, was in the city during the past week and registered at the Cosmopolitan.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION WITH A LARGE firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address SUGAR MAKER, care this office 4-16-98

WANTED—A POSITION AS CLERK OR AS- sistant overseer, on sugar plantation; can give best of references as to ability and character. Address 500, care PLANTER.

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommends the best in the State. Address J. FRANZ, Eureka, St. Louis county, Mo. 4-6-98

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. K. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS IN the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98.

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98.

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98.

WANTED—A CARPENTER, WITH LARGE EX- perience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98.

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EX- perience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCES, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Paincourtville, La. 3-18-98.

WANTED—A POSITION AS CHIEF ENGI- neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES PO- sition at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—EXPERIENCED GERMAN AGRICULTURIST, beet sugar culture a specialty, desires position; best references. Address Box 309, Irvington, New Jersey. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Piety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. D., 4301 N. Peters street, City. 2-8-98

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address Box 16, Ponchatoula, La. 3-20-98.

WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assistant boiler in some large factory. Best of references given. W. B., Box 62, Donaldsonville, La. 3-31-98.

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; he best of references. Address EXPERT, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2435 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98

WANTED—TWO YOUNG MEN, HAVING HA- d considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2600 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT EN- gineer; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louisa street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98

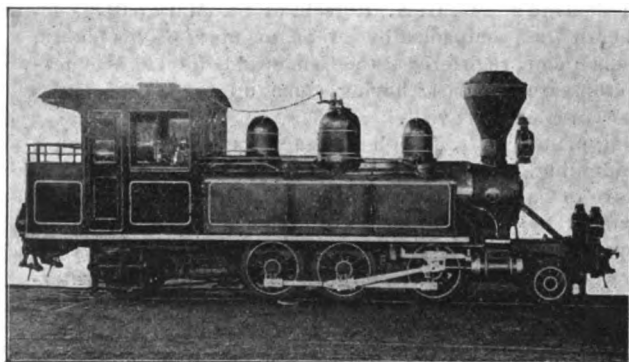
WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Giesmar, La. 1-28-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La.

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBRE, Central, La. 1-20-98



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AND

SUGAR MANUFACTURER,

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3 inch.....	14 50	36 20	54 40	72 50
4 inch.....	19 00	47 50	71 25	95 00
5 inch.....	23 50	58 75	88 15	117 50
6 inch.....	28 00	70 00	105 00	140 00
7 inch.....	32 50	81 15	121 75	162 50
8 inch.....	36 00	90 00	135 00	180 00
9 inch.....	38 00	95 00	142 50	190 00
10 inch.....	40 00	100 00	150 00	200 00
Half Page.....	60 00	150 00	225 00	300 00
Full Page.....	100 00	250 00	400 00	600 00

All communications should be addressed to THE
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Orleans, La.

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EXECUTIVE COMMITTEE:

Henry McCall,
Lucien Soniat, W. B. Schmidt,
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The Imports of Sugar.

The imports of sugar into the United States for the eight months ending March 1st reach but 620,000 short tons against 1,081,000 short tons, during the same period the previous year. These returns are taken from the recent government reports and indicate the enormous falling off in the importations of sugar under the Dingley bill, or rather the presence of an enormous supply imported into the country in advance of its needs to take advantage of the expected increased duties under the Dingley bill. The imports during these eight months are but 80,000 tons over one-half of the imports during the same period the previous year.

As these imports include 145,000 short tons of sugar from the Sandwich Islands, against but 113,000 during the same period a year before from those islands, it will be seen that in duty-paying sugars our imports have been less than one-half of what they were during the same eight months the previous year, or 475,000 short tons, against 968,000 the previous year.

This great diminution in the imports of foreign sugar can only lead us to infer that the supply of sugar in the United States, visible or invisible, must by this time be largely reduced, and that because of the reduced supply we shall go into the next crop with a somewhat higher level of values than those now prevailing.

A notable feature of our imports during the last eight months has been the importation from the East Indies, which, of course, includes Java, of about 200,000 short tons of sugar; Hawaii coming next with 145,000 tons, and South America 72,000 tons, Cuba 51,000, and the rest in smaller quantities from various countries. We have received from Holland about 15,000 tons of sugar, presumably white granulated; Germany sending us 9000 tons of granulated and only about 7500 tons of low

grade sugars. The sugar refineries generally keep their own counsel, and are not apt to indicate to the sugar world their own pressing wants in the way of sugar supplies. These data, however, surely indicate that the stocks of sugar in the refineries in the United States are now quite small, and that they will soon be compelled to pay higher prices to secure the necessary supplies to meet the large consumption of sugar that we shall have during the summer months.

War Taxes on Sugar.

It seems singular that the Ways and Means Committee of Congress, in looking about for sources of revenue capable of meeting the severe requirements of the existing war, should seem to avoid the consideration of increased duties on sugar, as though that commodity were *taboo*. A large part of the money that paid the cost of the last war came out of the sugar duties, and the average duty collected on sugar was above 3 cents for many years, and until reduced to an average of 2 cents by the tariff commission tariff bill in 1893. If 3 cents a pound were now collected on sugar instead of about 1½ cents as now, we should get a revenue of \$100,000,000 therefrom, instead of half that, as now. An increase of even half a cent per pound, or say \$11 per ton on imports of 1,500,000 tons of duty-paying sugar, would secure nearly seventeen million dollars additional revenue.

Earnest objections are made to any war tax on tea and coffee, but no such objection will be made to a tax on sugar. The Sugar Trust would object to anything that advances the cost of their raw material, but the importance of immense revenues to the government would seem to override any objections made by the trust. The tariff machinery is all in operation and it would create less friction and create more revenue if these suggestions were adopted, than will re-

sult from any other plan of taxation Congress may devise.

When it was found in 1874 that the duties imposed on sugar in 1870 were not yielding the expected revenue, Congress increased the whole sugar schedule 25 per cent. If even this were done now there would result at once an increased revenue of twelve to fifteen million dollars.

The war expenses are now enormous and increased revenues will be needed, and we trust that the Ways and Means Committee will find it desirable to take into consideration at once what additional revenues can be got out of sugar.

The Imports of Rice.

The imports of rice into the United States for the eight months ending March 1 were 47,000 tons, against 52,000 during the same time the previous year. Our short crop of rice at home and these limited importations, together with a short supply in the East Indies, owing to the great drought and famine that have prevailed there, would indicate a comparatively strong rice market throughout the year in this country. While our home crops of rice have not been large those planters that have had rice to sell have done better than for several years past, and we anticipate that 1898 will be another red letter year to those who may be fortunate enough in rice planting in 1898 to secure large crops.

The East Indian Rice Crop.

THE LOUISIANA PLANTER has advices from Calcutta to March 24 covering a forecast of the Madras rice crop for the season 1897-98. The total acreage planted in rice in the Madras Presidency exceeds 6,000,000, and was slightly over the averages of the preceding ten years, and about 5 per cent. larger than last year. The increase in planting is attributed to the heavy rainfall in August and September, which furnished a supply of water for irrigation. In some sections the insufficient rainfall has reduced the acreage. It is thought that the whole area planted may reach about 7,000,000 acres, and the present estimate is for about two-thirds of a crop, damage by insects and the lack of water creating the shortage.

Considering the crop estimates for Bengal, Madras and lower Burmah,

about 52,000,000 acres are planted in rice, which is slightly in excess of the average area, and the yield is expected to reach about 28,000,000 tons. In Burmah the conditions of the season are uniformly favorable, and the surplus of the rice harvest available for export is the largest on record, being but little under 2,000,000 tons of cargo rice. In Bengal the people were anxious to augment their reduced stocks of food and over extensive areas the autumn rice replaced non-edible crops. A good season for this crop was followed by a still better one for the great winter rice crop.

It is stated that, although there was an excellent rice crop in Burmah in 1896, the exports from that province to foreign countries were greatly reduced, as much of the supply was taken to meet the demand in the famine sections in India and upper Burmah.

Are Consulting Engineers a Necessity or a Luxury?

The article under the above caption, which appeared in our last issue, unfortunately had quite a considerable portion of it omitted through an error on the part of our printers, and we therefore this week reprint the entire article, embracing both those portions that were printed and those portions that were omitted last week. It is an excellent essay, is written by one of our rising young engineers, and we commend it to our readers.

The Louisiana Cane Crop.

Very favorable weather for the cane crop has prevailed during the past week, the only possible complaint being the one oft reported lately of a too low temperature. Following the rains of some few days ago a period of dry weather has ensued, permitting all field operations to be actively engaged in, and the reports from all sections indicate a notable and gratifying improvement in both plant and stubble. The gaps on the stand of spring plant cane are filling out and the general feeling among the planters is one of hope and encouragement.

Talmage on the Rice Market.

The week has been one of unusual activity, opening with a large demand, which continued throughout at increasing ratio, taking up

all spot goods of desirable character, and nearly everything due the next fortnight. As heretofore choice Java is the favorite, although within the last two days, under sharp advances in the better grades, buyers were more disposed to consider and a large per cent. to purchase of the "next best." The hardening tendencies are not alone confined to the better selections, for the commonest, as well as the intermediate grades are following in their wake. It should be remarked that in spite of gains established at this point, such are not as great as those which have occurred abroad, all of which augurs a further improvement.

Advices from the South note steady demand along the Atlantic coast, as well as in the Southwest. While prices thereat are comparatively high, it is quite generally appreciated that certain grades are still far below ($\frac{3}{8}$ - $\frac{1}{2}$ c.) importing cost of similar character in foreign, say prominently choice Carolina and ordinary to fair styles in Louisiana. Cables from abroad note brisk demand for, literally, all sorts of cleaned—good, bad and indifferent, with prices again up $\frac{1}{8}$ to $\frac{1}{4}$. As was foreshadowed in the previous report, high ruling values are tempting the East Indian into parting freely with his crop, witness the quadruple increase of exports of the Indies in the last two weeks. Part of the enlargement may be due to improved tonnage facilities, but the matter of price is by all odds the larger factor in the situation. This promised added supply cuts no figure in way of influencing values and is scarce more than a statistical fact, so far as the immediate future of the market is concerned. "What are these among so many" markets, wherein reserves are either nominal or an absent quantity. When it is considered that the total output is still quite 30 per cent. short of last year, deductions are hardly necessary, for it is quite apparent that the filling up of reserves is remote, and any hope for falling away "a far cry." Talmage, New Orleans, telegraphs Louisiana crop movement to date: "Receipts, rough, inclusive of amount carried over, 518,925 sacks; last year, 565,880 sacks. Sales, cleaned (estimated), 113,745 barrels; last year, 104,115 barrels. Strong tone; offerings light."

Talmage, Charleston, telegraphs Carolina crop movement to date: "Receipts, cleaned, 59,250 barrels. Sales, 58,570 barrels. Increased inquiry; offerings moderate."

Hon. Andrew Price and Mrs. Price were guests of the St. Charles on Sunday.

Mr. Frank J. Webb, manager of the big plant of the Baton Rouge Sugar Company, near Baton Rouge, was in the city on a visit a few days ago, and was one of the Sunday guests of the St. Charles.

Hon. James A. Ware and Mrs. Ware, of the splendid Belle Grove plantation in the parish of Iberville, were recent visitors to New Orleans, and registered at the St. Charles.

Mr. T. H. Casey, a prominent planter of Gibson, La., was among the recent arrivals at the Hotel Royal.

Captain John N. Pharr, of St. Mary parish, was in the city on a visit a few days ago.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: Beautiful weather has been vouchsafed us during the past week the only room for objection to it being the somewhat unseasonable depression of the temperature a portion of the time. A cool northerly wind prevailed on Tuesday, and Wednesday night the official thermometer of Local Observer Park indicated a minimum temperature of 50 deg. above zero. To-day, however, the feel of the air is more seasonable, and the bright sunshine gives the face of nature a genial and brilliant appearance that delights the senses.

The river has continued creeping slowly up the base of the levees, and stands this morning at 27.9 feet above extreme low water mark, or only one-tenth of a foot short of the maximum height which Observer Park has set in his mind's eye for it to reach during the present flood season. As advices from Vicksburg, Memphis and Cairo show the water to be receding all along the line, it is more than likely that Mr. Park will be able to put on airs henceforth as a shining light of the grand aggregation of river prophets.

There is no material change to report in the agricultural situation, and while from not a few plantations reports of thin and gappy stands of plant cane continue to be heard, the larger proportion of rural advices are to the effect that the outlook is quite satisfactory and encouraging.

Manager James Landry, of the Maginnis Company's Hermitage place, says there is no room for complaint concerning the conditions and prospects there, and several of his prominent [Ascension] colleagues speak in similar strain of the outlook presented by their fields.

Last Saturday was the anniversary of the last inundation of Col. J. Emile St. Martin's Bar Harbor basin during the unprecedented flood of 1897. His enlarged levee is in fine condition this year, and he anticipates no trouble from that source. In only a few places has the water yet reached the base of the embankment.

Mr. Ernest H. Barton is preparing for extensive improvement of his St. Emma factory, and as one of the preliminaries is offering for sale his two three-roller mills, with engines and gearing complete.

The Ascension Branch of the Sugar Planters' Association of Louisiana will hold its annual election of officers next Tuesday, and following the routine business of the meeting will come the agreeable task of discussing a dinner to be prepared by Mine Host Fred. Rogge, of the Nicholls Hotel, a caterer whose reputation assures a high class affair, judged from a gastronomic and culinary standpoint. Only two guests outside the active membership have been bidden to the feast, Hons. Joseph L. Brent and Wm. Porcher Miles, ex-presidents of the association, to whom pressing invitations were recently addressed by President Henry McCall, in the name of the organization. Mr. Miles has replied in the most cordial and

appropriate terms, expressing great regret that his physical condition prevents him from participating in such affairs, and conveying to the members his best wishes for their individual well-being and the continued prosperity of their association. General Brent has not yet been heard from, and the wish is general that he will be able to attend and mingle once more with his legion of friends and admirers in

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been favorable, though on Tuesday night it was rather cool for the season—the thermometer at the United States engineer's office at Plaquemine dropping as low as the 48-deg. line. Work has progressed. The better part of the cane has been fertilized, and has had the dirt thrown back to it. We have noticed in most places that fertilizer for corn is being applied by hand, and when asked the reason of it, a prominent planter replied that the corn was more quickly and directly benefited by its application in this way. The experience of a number of planters here has taught them that dropping the fertilizer with a distributor at the time the corn was planted was the best method. Even where applied to the growing corn we think equally as good results can be obtained by the use of the distributor, at a reduced cost for the work.

A visit to the Reliance plantation of Mr. Louis Lozano showed everything in fine shape, and a stand of cane, both plant and stubble, as near perfect as could be. The better part of the seed cane was put down late, some time in December, and was in fine condition when planted. Mr. Edward Comeaux, manager, was just winding up the work of fertilizing stubble. Here, as on numerous places, a good part of the corn had to be replanted owing to the ravages of a little worm, locally called the cut-worm. A large field of new ground has been cleared up for cultivation. Most of the trees were of recent growth, running under twelve inches in diameter. They were cut down for wood during the winter, and the stumps are pulled up in good shape at a small expense.

The corn worms have bothered Mr. Thomas Supple, at the Catherine plantation, and he says he has found that the best way to destroy them is to run a digger or a plant cane chopper over the young corn. An occasional stalk is pulled up, but the worms disappear. Mr. Supple is trying twenty tons of a new fertilizer called "Castor Pumice," made from the seed of the castor bean in about the same manner as cotton-seed meal, on his corn. This fertilizer is cheaper than cotton-seed meal and is said to be better. It is applied in the same way as the meal. There is a good stand of cane, though hardly as heavy as last year's, on all three of the Supple places, attributed to the fact that they never plant cane unless the sun is shining.

The A. Wilbert's Sons Lumber and Shingle Company, of Plaquemine, has contracted with the Fulton Iron Works, of St. Louis, for a new piece for bed-plate and for a new three-roller

mill 30x60 inches, with double crown wheels, a Fisher hydraulic pressure regulator and all attachments, to replace the front mill at the Myrtle Grove sugar house. The back mill at Myrtle Grove was built by the Fulton Iron Works a few years since, so that with the new mill added the Messrs. Wilbert will get a first-class extraction.

The river at Plaquemine reached the 30.5 line on Tuesday, and has been on a stand since.

IBERVILLE.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: The weather conditions have been most opportune for field work, and rapid progress has been made in the application of fertilizers and ploughing the middles to both plant cane and stubble. From divers causes, quantities of corn on some places have been replanted. Regardless of the somewhat cool weather for the season, cane fields, both spring plantings and ratoons, have improved immensely in the past ten days. In some fields the stand of plant cane may not be as thick on the row as some desire, yet an ample stand may be had in most instances if the earth is not banked on to the canes too early, giving ample time for the suckers to swell at the base of the young canes. When once the young eyes have become elongated, from four to six inches of earth may retard but will not arrest their growth.

The recent rains were most opportune, as grass seed and weeds have sprouted, and can be destroyed before the weather gets hot. With four weeks of favorable weather, the crops will be above the average, although some are backward with scraping plant cane and fertilizing both the stubble cane and spring plantings, work which should be expedited without delay.

Heretofore the majority of the cane growers have neglected the thorough cultivation of the corn areas to the serious detriment of the plant cane and stubble crops to follow. The corn acreage in most instances has grown at least two exhausting crops of cane, and the land is generally deficient in nitrogen, which can most advantageously be had in tankage, as the pea crop will be augmented and the phosphates will become available for the cane crops to follow. To manurally enrich the corn areas is to insure better yields of both plant canes and stubble, as a better stand will result from the latter, the stumps having more vitality.

The present method of applying fertilizers can be improved on—if the day is windy and the material in a fine mechanical state of division—the fine particles instead of being deposited where they are most needed, are blown broadcast over the fields into the ditches, etc., where much of it is lost or will prove of little or no avail to the growing crop. The fine particles are those which decompose the more readily, and should, if possible, be retained when the early and delicate roots of the plants can feed on them to cause rapid root ramification, and consequently very luxuriant plant growth at an early date.

At Belle Farm, of Mr. C. W. Bocage, the old

mills are being removed to be replaced by two three-roller mills, 5½ feet long, being built at the Whitney Iron Works. Mr. Thomas A. Shaffer, who has purchased the one-half interest of Mr. Charles Morrison in Honduras, proposes to put in another milling plant. He recently sold his interest in Ardoyne to his brother, Senator John D. Shaffer, for \$95,000.

Wednesday and Thursday of last week clear; Friday cloudy in the morning with local showers in the afternoon and rain during the night; Saturday cloudy in the morning and fair later; Sunday a lovely day with light local rain at night; Monday fair, Tuesday and Wednesday bright, but cool for the season.

The official weekly weather report from Schriever is as follows:

	Temperature.		Sunshine	Rainfall.
April 18.....	85	52	100	.....
" 19.....	83	63	100	.16
" 20.....	84	52	.75	.73
" 21.....	81	51	100	.....
" 22.....	83	53	.50	.....
" 23.....	80	63	.75	.24
" 24.....	84	59	100	.....
	83	56	.85	1.13

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: There was a continued improvement in the general conditions of the weather for the past seven days. The temperature has been more even, and, in consequence, the crop shows a decided advance, and with a few more days of such weather an entire recovery from the cool snap can be recorded. There were two refreshing rains during the week, which was not a disadvantage at all.

The cane crop is looking very well, though the stubble in some places has not come up to a good stand yet. Plant cane is fine for the time of year. Complaints are heard from some sections of the ravages of the chinch bug in the cane, but no serious damage is anticipated. It is quite different with corn though, for in many places the little pests are just taking things by storm. In the neighborhood of Perry, two miles south of Abbeville, they are making a clean sweep of the corn crop. Commissioner J. G. Lee was applied to for assistance and he referred the matter to Professor Morgan, entomologist of the Experiment Station, for consideration. Professor Morgan will visit this parish, if possible, and attempt to destroy the bug. He has made considerable investigations which will doubtless put him in a position to furnish an effective destroyer at once; if not there will be but little corn raised in a large part of the parish, and the cane crop may be materially damaged, as well as rice. Cotton farmers are putting their land in shape preparatory to seeding, but the acreage will be very small. Rice planting is under good headway now, and the rice to be irrigated will all soon be planted. Other rice will not be planted before May.

Mr. O. M. Nilson, president of the Vermilion Sugar Company, returned to Abbeville yesterday afternoon, the 25th, from New Orleans. Mr. Nilson said to THE PLANTER cor-

respondent that the existing war would probably delay the starting of the building of the refinery at Perry that his company proposes to erect there. He had expected to begin work some time in June, but now he may not begin before September 1 next, but will not delay later than that date.

Mr. A. Kaplin, of Crowley, manager of the Vermilion Development Company, who owns and operates large irrigating canals in West Vermilion, was in Abbeville Monday, the 25th. He drove down the canal that is now being built by the Hall & Slutz Irrigating Company, Limited, and investigated the country through which it is to pass. Mr. W. H. Lovegrove, one of the directors of the last named company, was with Mr. Kaplin on his trip of inspection.

This country is strange to Mr. Kaplin and he was very favorably impressed with what he saw. He is very jubilant over the future prospects of his company at Gueydan in the western portion of the parish, and is very much pleased with the progress being made on their extension and the additional immense plant being put in by the company.

Mr. W. G. Hall, of the Hall-Slutz Company, left here Tuesday morning for New Orleans on business.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: The planting interest has had to contend with rather too much rain for the past few days. At least a week or ten days of fair weather is now needed for ploughing and hoeing out crops, clearing the plants of weeds and grass and fitting the soil around the tender shoots of corn, cane and cotton so that they may be drawn boldly from the land.

While it is natural, or seemingly so, to complain, from present indication, as presented by the growing crops, I am inclined to think that the farming community should feel very good over the success so far attained. The plant cane is now marking the rows beautifully, so much so that in many instances a perfect stand is an assured fact.

As far as can be ascertained up to the present moment, stubble is sending out ratoons in a manner to charm the eye and delight the cane growers more than they have been for some years past.

THE PLANTER's correspondent was on St. Peters plantation, now the property of the Augusta Sugar Company, Limited, the greater part of the past week, and while there learned that field work was being advanced as rapidly as the nature of the weather would permit.

There was some complaint of an excess of rain, and from what I could glean from observation it appears that the rainfall at Barbreck, St. Peters and vicinity has been more excessive than higher up Bayou Boeuf. However, a decidedly fair share of field work has been carried forward as fast as the weather permitted doing so. Mr. Douglas, the overseer for the Augusta Sugar Company, Limited, has surely made an excellent showing since he has been on the place.

At the sugar house I found Mr. Aug. Les-

seps, president of the company, engaged with a force of mechanics and laborers tearing out the old open kettle plant to make room for a large modern plant, replete with the best workmanship to be had.

The first new structure to go up, and now being built, is a large boarding house built on plans designed by Messrs. Easton & Sons, carpenters and builders, of Evergreen, La.

The crops on St. Peters, property of the Augusta Sugar Company, Limited, indicate a heavy yield of cane and corn; providing, of course, the weather is propitious.

On the afternoon of the 23d I called in for a few moments on Mr. Henry Shaw, managing Barbreck plantation. Mr. Shaw stated that the late heavy rains had deranged his field plans by causing delay, but hoped to get a season of drier weather in which to plough and fix his lands so that the cane and corn may improve along with the advancing season. Mr. Shaw will fertilize 200 acres of plant cane with cottonseed meal, distributing at the rate of 500 pounds per acre; and will apply crushed cotton seed on stubble at from 1000 to 1200 pounds to the acre, and will distribute about same amount per acre of crushed cotton seed to fifty acres of corn.

Barbreck has a fine oats crop this year and is now planting sorghum for hay.

Mr. Campbell, manager on Anchorage plantation, is well advanced with his field and crop work. He has cane and corn neatly worked and promising.

Mr. Phillips, Barbreck, has some acres of beautiful cane. The crops in the neighborhood are as a rule good.

Mr. C. J. Fuseller, managing the Powhontas plantation, has some decidedly promising cane. Above, on the bayou, Mr. C. F. Knoll has advanced all along with his rich acres to cane and corn. Mr. M. Bubenzer and others in the vicinity of Bunkie have made fine progress.

ERIN.

The Objects Sought in Feeding the Horse or the Mule.

To have a rational knowledge of the subject of feeding one must be somewhat familiar with the physiology or the functions of animal life and chemistry, a great deal of which is involved in the study of the former. One of the chief requirements of the owner of animals is to know what foodstuffs are best suited to bring about the results most desired, and to know this well he ought to be familiar with the chemical ingredients (contained in the food) which are required by the animal economy to supply the tissue waste which is constantly being produced under the influence of work, be it light, medium or heavy. The physiology which the stock owner is most in need of is that of the digestive system. It would be well for him to know the changes that the food undergoes from the time it is taken into the mouth until it reaches its final destination.

Figuratively speaking, a great many people shovel grain into an animal, the same as they would load up the furnace of a locomotive, forgetting that in the former case they have definite laws of animal life to deal with, and

when these laws are violated, nature rebels, and the normal standard of health is interfered with. It might be interesting, and we hope instructive, to allude to a few of the processes through which the food passes. The first of these is prehension, or the act of taking the food into the mouth. (2) Mastication or chewing, which is the process of preparing the food before it is swallowed; and right here is one of the most important acts in the digestive process. The food is here broken up and its starchy ingredients exposed to the action of the saliva, in which is an important ferment (ptyalin), which changes these insoluble starchy materials into soluble sugar. Besides this, the saliva and mucus in the mouth render the mouthful of food more easily swallowed through being better lubricated. The mixing of the food with saliva is known as (2) insalivation, and the act of swallowing (3) deglutition.

After the bolus of food has been swallowed and passes into the stomach, it undergoes what is known as (4) chylification, or the mixing into a pulpy mass by the action of the gastric fluids and the movements of the muscular walls of the organ. Here the food is acted upon by the pepsin, which is the ferment produced in the stomach, and this ferment acts upon the insoluble nitrogenous elements and converts them into soluble peptones. It should be remembered that the insoluble elements of a food can not be absorbed in that state, but are readily absorbable when rendered soluble; hence the value of these ferments. After the nutritious part of the food has been mixed with the intestinal juices it is known as chyle, and the process (5) chylification or intestinal preparation. It then undergoes (6) absorption into the circulation, by which it is conveyed to the various tissues of the body; and (7) assimilation, or the incorporation of the food material with the material of the body. There are other ferments which act on the constituents of the food in the intestines. The secretion of the pancreas, or sweetbread, for instance, has several. Amylopsin has a similar action to that of the salivary ferment, of changing starchy material into sugar. Another, trypsin, acting similar to pepsin, by changing nitrogenous matters into soluble albuminose; and steapsin, which renders fats and oils capable of being absorbed. The bile also has a specific part to play, in the emulsifying of the fats preparatory to absorption.

It will be seen, then, that the process through which the food has to go before its ultimate use is accomplished is a very intricate one, and if, through ignorance or otherwise, any part of the chain of processes is interfered with indigestion and its consequences must be the result. The primary object in feeding is, of course, to nourish the tissues of the body, but, besides that, there are other objects to be sought after.

The Maryland Agricultural Experiment Station has quite recently issued a bulletin on "Horse Feeding," and in it we find the following, which we endorse:

"The objects sought in horse feeding are rather different from those desired in feeding any other class of domestic animals, and in

consequence the points to be observed are, in a measure, peculiar. From the birth of the horse until arrival at an age for actual service, the aim is to develop the greatest degree of endurance and physical powers of the animal. These qualities depend upon the muscular fibre, sinew and bone, and they, in turn, are dependent upon the quality and quantity of the food. After having grown and developed a horse with the desired qualities, the next consideration is to feed the animal in such a way that all the bodily functions may be supported, bodily waste replaced, and the whole be maintained in its normal condition. If the animal is subjected to comparative rest, there will be one kind of food required; if subjected to heavy work, such as hauling heavy loads slowly, there will be a food required to supply the energy as needed, or, so to speak, of food (fuel) of slow combustion; if the work is of a character that requires rapid action, as the trotting horse is subjected to, there will be demanded food of very different character from either of the former; or, so to speak, it will require a food (fuel) of rapid combustion. In all horse feeding the aim is to maintain the force and endurance which the horse already possesses, and to develop these qualities when possible.

"When it is desired to have a horse increase in weight and size, and take on a well-rounded appearance, it should be done by adding to his muscle rather than to increase greatly the amount of adipose (fatty) substances. This kind of development can only be done comparatively slowly, and when the animal is subjected to such work as will develop muscle and keep down fat. It is only the superficial judges of horses that are satisfied and pleased with the bones being covered, the points filled out, and general contour well rounded; the person well versed in horses easily distinguishes between the appearance of fat and a muscular animal. There are no more important subjects to the live stock owner than that of feeding, and it is one that will bear a great amount of study and thought."—*Weekly Picayune*.

Too Much Speculation.

In many portions of the United States designing men are taking advantage of the interest in beet sugar culture to work up schemes for the establishment of beet sugar factories on plans which are almost certain to end in failure. It has not yet been fairly demonstrated that the manufacture of beet sugar can be made profitable in that portion of the United States lying east of the Missouri river. It is very probable that the industry will not prove a paying one there. Schemers are, however, industriously working up "co-operative" organizations for factories. Their object is to get the farmers and merchants of the place where the factory is located to put up the money for erecting and equipping a factory. The promoters will get a fat profit out of the construction and sale of machinery and then leave the factory—an elephant on the hands of the unfortunate stockholders. The conditions are so much more favorable for the beet sugar industry in various districts in the

Pacific coast and intermountain States than they are further east that the further successful development of the industry is morally certain to be on this coast.—*Oregon Agriculturist*.

Trade Notes.

Stirling Boilers.—We are informed by the C. S. Burt Company, Limited, local agents for the above-mentioned boilers, that during the past week they closed contracts with Messrs. Dugas & LeBlanc, of Westfield plantation, for 500 H. P.; Widow A. Troxler & Co., St. Joseph plantation for 255 H. P.; Feliclen Waguespack, of Sport plantation, for 400 H. P., together with Burt's bagasse burner and auxiliary furnaces for coal. These sales amount, in the aggregate, to 1150 H. P., and indicate how very favorably the Stirling boiler continues to be received by the sugar planting community.

Baldwin Locomotives.—Elsewhere in this issue will be found the advertisement of the Baldwin Locomotive Works of Philadelphia, makers of all kinds and sizes of locomotives, and especially of plantation and logging locomotives.

Our sugar people are particularly interested in this, for the construction of plantation railroads for the hauling of cane to the factory is becoming more and more extensive, and light locomotives suitable for this kind of work are manufactured by the Baldwin Locomotive Works in immense numbers and in every size, style and variety.

The Southern agents for these locomotives, Messrs. Krajewski, Pesant & Co., are represented in the Godchaux Building, New Orleans, by that well-known gentleman, Mr. A. F. Slingerup, and it is probable that quite a number of the engines will be placed on our sugar plantations during the coming season. The cheap and quick handling of cane by steam is bound to supersede the old style of mule delivery.

Captain Geo. E. Mann, the genial planter from the Lower Coast, came up to town during the past week and put up at the Grunewald.

Mr. John Hill, one of the most prominent planters of West Baton Rouge parish, accompanied by his son, Mr. George Hill, were in the city on Tuesday, and registered at the St. Charles Hotel.

Mr. C. B. Maginnis, of the fine Woodlawn plantation, accompanied by his wife and child, visited the city during the past week and registered at the St. Charles.

Hon. Walter A. O'Neill, of Linwood plantation in the parish of St. Mary, registered at the Royal on Tuesday.

Mr. W. G. Pearce, of New Iberia, and Mr. G. B. Kimbro, of the same locality, were in the city during the past week, and put up at the Hotel Royal.

Mr. E. McCollam, a prominent planter of Terrebonne parish, La., was in the city during the past week, and put up during his stay at the St. Charles.

Mr. C. W. Bocage, of Houma, La., was a guest of the Royal on Wednesday.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, April 9, 1898.

Editor Louisiana Planter: The hopes that finally better weather would set in have been sadly frustrated, and instead of opening with warmth and drought the week was ushered in by a thirty-six-hour rain, which drenched the fields anew after a short period of dryness. Later on the sun broke at intervals through the clouds, and as a sharp breeze was blowing, the soil dried a little on the surface, of which the farmers hurriedly took advantage, but of course this didn't amount to much, as on lower sites and on heavy soils field operations are still entirely impossible, and, as elsewhere, too many interruptions caused by occasional showers have taken place. Nor was the weather more favorable for vegetation; the temperature, though pretty variable, was decidedly too cold, and thus the fact must be stated that in spite of the winter, and for all the greening and budding in February, the crops are threatened by backwardness if an early change of the weather does not set in. Such is also the tenor of the reports from abroad, though in some instances, for example in Holland, field work has progressed so far that the sowing of the beets can be commenced at the shortest notice. Nothing of importance has leaked out with regard to the area to be planted with beet this year, but the general opinion is that the prospects are more for a reduction than for an increase.

There is no doubt any more that the bounty conference will meet at Brussels on June 7 and besides the countries named in my last letter Russia, Sweden and Norway will be represented. The adhesion of France of course does not mean that she has changed her mind with respect to the indirect bounties. She clings to the theory that the indirect bounties are an interior affair, which foreign growers have no business to meddle with. And this will prove the stumbling block to the whole enterprise unless England resolves to levy countervailing duties from sugar of such countries as are known to pay bounties. But as the public in England believe that in consequence of the abolition of the bounties sugar would become dearer, and as many influential politicians consider the application of countervailing duties as being inconsistent with the principles of free trade, it is not very likely that measures will be taken to enforce the stipulations agreed to by the majority of the countries represented in the conference. But without such measures the text of any agreement will remain a dead letter, and the conference will again turn out to be a failure, as its many predecessors have been. It is said so far four motions have been prepared to be laid before the conference; one aiming at the total abolition of the bounties is submitted by Germany, England, Belgium and Holland.

By the new German legislation for the protection of working men and women it was provided that females shall be no longer allowed to be engaged working at night in sugar facto-

ries, but a period of transition was left in order to avoid too abrupt changes in the working plan of the factories. This period expired on the 1st of April, and before that date the great beet sugar societies had applied to the imperial government to change this provision, offering all guarantees for the moral and physical safety and protection of the working women, whilst on the other hand it was pointed out that the earnings of the latter were seriously curtailed and in an uneconomical way work must be done by men which women are more or exclusively fitted for, such as cleaning the rooms, sewing bags and the like. The federal council, however, with whom the decision lay in this case, has not deemed fit to comply with the wishes of the sugar manufacturers, and thus since April 1 it is no more permitted to use at night female labor in German sugar factories.

The board of directors of the Russian society of sugar manufacturers has issued a circular to their members in which it is recommended to erect meteorological stations, in order to get correct and authoritative reports on weather and temperature and to enable the central bureau to derive therefrom an opinion as to the possible results of the crop. The plan of the enterprise with the necessary hints for making observations and corresponding reports is made by the director of the meteorological observatory at Kiew, and the cost of the instruments and buildings are estimated to amount to about \$56 to \$62.

I wrote you once that a committee had been formed for the founding of a sugar factory at Aarberg, Switzerland. But it seems that the project can not be carried out without the commonwealth aiding. The said committee, therefore, has applied to the authorities, but the great council of the canton of Bern has postponed the discussion of the bill in question until her next session. Your esteemed readers will no doubt remember that the first attempt to introduce the sugar industry into Switzerland failed, the factory at Monthey, called Helvetia, having only had a short existence.

The fact that the refineries have done better last year than in the preceding one is again confirmed by the balance sheet of the Pommeranian Provincial Sugar Refining Company at Stettin, which cleared, inclusive of 18,085 marks carried forward from last year, a profit of 719,200, out of which a dividend of 10 per cent. is paid, while 245,325 marks are used for writings off. Last year the dividend amounted to only 5 per cent.

The figures of importation into England during the month of March can be considered as satisfactory. There have been handled (in raw value) 132,224 tons, as against 122,515 tons at the corresponding time in 1897, and for the first three months the importations have been in 1898: 357,072 tons, as against 295,450 tons; therefore more this year, 61,662 tons.

The course of the markets last week has been somewhat disappointing. After the rumors that America was buying being confirmed and the results of the inquiry of the fabricants, which are indicative of a decrease of beet culture in Germany for this year becoming more generally known, the tendency

should have been more cheerful, whilst, on the contrary, it weakened a little toward the close. This may be due to the precarious political situation, perhaps also the proximity of the Easter holidays. Let us hope that the former will now change for the better without resorting to arms, and that business after the holidays will be the brisker. Prices closed on many places lower than last week; in Germany they are about unchanged—9.75 to 10.15 marks for actual 88 per cent. rendement at Magdeburg, whilst delivery April at Hamburg is quoted at 9.075 marks. Refined were more active for crushed grades, which are also 0.25 marks dearer.

ROBERT HENNIG.

Barbados.

We are writing during the final hours of a fast-dying month that has, from a meteorological point of view, proved itself in no way refractory to the customs of the month of March. At one time it did seem as if the heavy dearth which it inherited from the ever-dry February was lingering; but as we reported in our last fortnightly review, there was a sudden change which brought relief to the fears and anxieties of our reaping planters. There have been occasional falls since that date, but not general.

There was a terrible look of anguish on the countenances of all those directly interested in the doings of the produce market when it became known on the 18th inst. that the prices had been subjected to a heavier fall than was noted a week previous. Started at \$1.80, it fell in two weeks to \$1.75, and one week later to \$1.65, at which ruining figure it remains today. Such is the feeling at the present moment that the serious question is being frequently put in certain circles, "What will become of our island? Faith unfettered is unrelentingly pinned to the gaudy expectancies of reciprocal diplomacy with the United States of America; and all those who are easily rammed by the voices of promise from gilded halls are regaling themselves that the "profit is in the duty" which will, subsequent to these arrangements, be abandoned. There is another section, however, and a strong section too, which manifests rather adamant ideas as to the ultimate result of these reciprocal arrangements. They say that till the arrangements are settled our produce will be lower and lower; that they expect to see the product go down even to \$1.40 and that when reciprocal arrangements have been completed then will sugar rise, but never to exceed two dollars.

In the present crisis, with sympathies and promises being handed us from all corners of the universe, it is not at all an easy matter to foresee the cloud that means betterment for us. In good faith we look to the mother country; in equal faith we advance toward the offer of our American cousins. Our position in this matter is more precarious every day, and we can only look forward to what good the exchange of ideas between the Secretary of State for the Colonies and the United States government on such matters will bring to us. The manufacture of non-paying product progresses busily, and as the poor planter advances, he meets with supplementary sorrows. The com-

plaint is no longer against borer and fungi; the introduction of a multitude of varieties of plants would seem to have annihilated these dangers. But the output is far below the average. Canes, heathful and luxuriant, with great big joints and plenty of juice, fail to produce a reasonable quantity of sugar. This is a state of things obtaining all over the island, which adds fresh grief to the cup of sorrow already doled out to our planting fraternity. The Bourbon is now looked upon as the seat of disease. It is seldom planted anywhere, but the new varieties which have displaced so faithful a friend are in no way up to its standard of excellence.—*Globe, March 31.*

The Protection of Crops from Frost.

[Purdue University Agricultural Experiment Station Report, C. S. PLUMB, Director.]

The direct loss from injury due to frost is of considerable importance. We hear most frequently of damage to fruit buds in the spring, and the damage to the peach crop has become a standard joke for the funny man. The loss of early garden crops receives less attention, but if the total were known, it would reach quite a respectable figure. Both spring and fall frosts often injure the corn crop to the extent of many thousand bushels.

Water is the best protection from frost. The air always contains some water vapor, and the warmer the air is the more water vapor it can contain. At 50 deg. a cubic foot of air might contain four grains of water vapor, and usually contains about three gallons. When the air cools, a point may be reached at which it can not hold up all the water which it contains. If this is above the freezing point, some of the water vapor is deposited in the form of dew. But when the water changes from water vapor to liquid dew, a large amount of heat is given off and this prevents a further fall of temperature. But if the air contains so little water vapor that it can cool below the freezing point before the water begins to deposit, the water is deposited in the form of ice crystals and we have a frost. A moist air then is a protection from frost. The frequent shallow cultivation that saves soil moisture will at the same time keep the air above the soil more moist, and will to some extent serve as a protection from frost. Dr. Kedzie quotes a circumstance where a recently cultivated corn field was not injured by a frost that cut down the corn on surrounding fields.

A more direct and effective way of protecting plants from frost is to irrigate the land or to sprinkle the plants with water at the time the frost is expected. In this State few farms have means of irrigating in the usual way. But there are many farms on which fruits are sprayed, and the spraying machinery may easily be used to sprinkle plant with water to protect them from frost. This method has proved practical and profitable on a variety of early spring crops.

Another method is to form a cloud over the field which will protect it. This is usually accomplished by burning material at such points that the wind will blow the smoke across the field. The purpose is not to warm the air but to interpose a layer of smoke between the plants and the sky, and so prevent the loss of heat. For this purpose, smudge fires giving much smoke are best. Special torches made of muck and clay have been patented for this purpose. Those who have experimented in frost protection seem to think that the sprinkling method is the most practical and efficient.—H. A. HUSTON, *Chemist.*

BEET SUGAR.

Chino, California.

Despite all the adverse conditions we have had this spring, there yet promises to be a partial beet crop to record. Since the wind of last week, however, the prospects have been much more discouraging, as quite a large acreage was injured or destroyed at that time.

Mr. Ruopp, of the agricultural department of the factory, yesterday showed us his record of the crop up to last Saturday, the report being made up weekly. There had been planted up to Saturday on the Chino ranch 3244 acres. Of this there are 2000 acres on the lower black land, which Mr. Ruopp says is looking very well. The plants are growing thriftily, and unless something yet happens, will produce a crop. The balance, planted mostly on sandy land, is not of much value, especially since the wind and hot weather of last week.

Of the acreage planted there is at present 411 acres of good stand. Mr. Ruopp considers that there are something over 1000 acres on which it is yet safe to plant, but planting will all be completed next week. He expects to have about 4500 acres planted for the season.

Thinning is just commencing.

The full report from Anaheim and Florence districts had not yet been received yesterday, but such as had been received indicated that the wind of last week had done great damage. With the exception of a few irrigated fields no beets are expected from Anaheim. At Florence, where the crop was thought to be safe, the wind last week badly injured it. A rough estimate places the damage at from 60 to 75 per cent.

A small acreage is being irrigated here, and this week the land company started pumps in two of the wells just north of the factory grounds, from which the water is being used west of the factory. It is hoped to continue using this water, if not on beet fields later, then on some kind of forage for stock feed.

Through the courtesy of E. J. Gates we visited on Tuesday the stock yards east of town, where the finest beef is fattened for the market. Chino beet pulp fed beef has a reputation throughout the country now as the best beef on the market; and a visitor to the yards, who sees the manner of feeding and the quality of the feed will not wonder at this. A cleaner, sleeker, more contented lot of cattle one seldom sees.

The feeding season is now about over, and the yards will soon be empty. In the east yards Mr. Greening now has about 100 head, and Vail & Gates have 136 head. It was the latter corrals that we visited. There are there both Chino ranch stock and Arizona stock, but the superiority of the former, which has been bred up, is very marked.

The feed now being used is hay—say about eight pounds per head, and ground corn and oil meal—all the cattle will eat—mixed with beet pulp. The corn and oil meal are mixed dry in the proportion of one part oil meal to two and one-half or three of corn. All is then

mixed with the pulp in the troughs, and the cattle fairly laugh over it. The troughs never remain empty, and the cattle are getting fat and round and ready for fine steaks and roasts.

The last of the pulp is just being used, and in a few days the cattle will all be marketed.—*Champion, April 22.*

Oxnard, California.

Oxnard, and not Hueneme, will be the name by which the site of the great beet sugar factory of Ventura county will be known. The new town is building with all the appointments of a modernized city. Numerous houses are in the course of construction, concrete sidewalks are laid out and building about many blocks, and water mains are being laid in the streets to be fed from the artesian well in the middle of the site, and all this follows in the wake of the erection of a beet sugar factory.

To a reporter of the *Ventura Signal*, Chief Engineer Bauer of the big enterprise, expressed himself as follows:

"The best proof of the way we feel about the outlook is evidenced in the work we have already accomplished. It speaks for itself. There it is. Since March 1, we have put up that pile of iron. We will finish it to-morrow. That building is 400 feet in length, as long as two Ventura blocks. It is over 130 feet wide, and it will run 50 to 60 feet in height. The machinery for the sugar making is on the way, and it will be here any day, and will be coming every day for months. It will be put in as rapidly as it arrives. We will be in time for the farmer and his crop. We will be better than gold mine to him, for we build for all time.

"All we ask is that he does his share. He must not throw up his hands like this, with the choicest climate and soil and most beautiful valley in the world. And right here under his feet is water, water in amplitude. It is well known, and I have further demonstrated it. There is a great pent-up reservoir at a depth of 130 to 150 feet under this valley. It is fed from the great Sierra water-shed and is kept in here by the ocean. When it is tapped it booms to the surface. A well of three inches here spouted ten feet. Another I have just finished, ten inches in diameter, with an eight-inch sand pump stuck in its bottom, lifts water six feet above the surface. Within a radius of a few hundred feet I will put down other wells. One of these will be fourteen inches in diameter. I have no fear that the flow from one will diminish the flow of the other.

"A three-inch well can be sunk for a trifle, comparatively speaking. A hundred dollars will cover the cost, and its flow will irrigate many acres of this fine, moist soil. The farmers will be independent of rains then. The beet will hunt for water a long way down. Why, in Paris I saw a beet whose fine silky tendrils had gone down twenty-three feet. Six feet below the surface here we could not get rid of the water to lay the cement foundation for the smokestack. The men worked in the water. It was inconvenient, but the foundation will be just as good.

"Our machinery will be the most modern in

the world, and our output nothing but the finest and purest granulated sugar," said Mr. Bauer in conclusion.

In conversation with Major Drifill, the genial general superintendent, it was learned that some 2000 acres could be planted to beets without further moisture, and that arrangements were making to irrigate some 2000 acres in addition, and every acre that it is possible to reach with artesian water.

Work at the factory is going on rapidly. William R. King has charge of the iron work construction. From the way he is handling the stupendous pile he knows his business. A feature of the works will be the lime kiln. This will be the largest in the world, and will tower up over a hundred feet. A few hundred feet west from this landmark will arise another as conspicuous, the iron smokestack, which Engineer King says will rear its black proportions up 130 feet. It will have neither stay nor brace other than its cement, brick and stone foundation, but will be able to resist a wind blowing ninety-five miles an hour. This smokestack will be an outlet for thirty-two of the finest boilers, most of which are in place. The furnaces will be fed from two huge tanks set in basins 500 yards away from the works. The big sugar warehouse is all but complete, and is so vast that the whole Chino factory, which runs twelve boilers, could be stored in it. It is of brick, with a cement floor. Near it is the brick office building, three stories, the top floor of which will be occupied as a laboratory and connected with the factory by a covered bridge.

A handsome clubhouse and residence for the superintendent, with cottages, stables, etc., are nearing completion under the direction of Architect Krempel, of Los Angeles.—*California Sugar Beet.*

Spreckels, California.

Work on the large beet sugar factory at Spreckels is progressing in every department, and our readers will be interested in the magnitude of the enterprise as described by a representative of the *Salinas Index* who visited the site on March 26:

Despite the knowledge that immense quantities of material are being used hourly in all the different departments under construction, there seems to be no apparent diminution in the amount scattered about promiscuously in the yard. Immense copper worms, crystallizers, sugar pans, pipes and boxes filled with machinery of every description can be noted everywhere. The five elevated approaches from the narrow and broad gauged tracks which will convey the beets received hourly when the factory is in operation are almost completed as far as to where the receiving bins will be constructed.

Upon one's arrival at the end of the street railway system, the sewer gang, numbering eighty-five, can be seen busily at work digging trenches to receive the sewer pipe. Although the work was only commenced Friday, this morning the work of laying pipes will begin and over 2000 feet will be laid before to-morrow noon. This sewer, which will be for the town of Spreckels and the factory buildings,

will have a depth at its shallowest portion of six feet, and at its deepest portion a depth of eighteen feet.

In the machine shop, piperoom and carpenter shop, hundreds of men are busily engaged turning out material for the different sections of the work in hand. The boilers in the boiler house have been bricked in and the entire walls of the building itself completed. A major portion of the roof has been planked and slated, and the entire covering will be finished the present week. The two immense steel chimneys are ready for use and some workman, undoubtedly inspired by the war news being received daily, has planted the American flag on staffs towering some ten feet above their copings. These flags which, although 227 feet above the ground, show their colors plainly, are very large and are probably flying higher than any others in California to-day.

The main building or sugar factory proper is assuming immense proportions. The first section or the northern portion, some 250 feet in length, is finished complete as far as the steel framework contract is called for, every rivet being driven and everything in place to the fifth-story and roof girders. On the third floor of this section forty-two large crystallizers are in position, and on the fourth floor six of the large iron sugar pans, sixteen feet in diameter and ten feet in height, are placed. The concreting of the floors has been commenced, as well as the painting of the steel.

At the south end of this section workmen are engaged sinking a 20-inch well to a depth of 100 feet, which will be used to work one of the elevators in the factory.

The second and third sections of steel frames are up to the third story with necessary braces in position. These sections will have one and three floors respectively only. G. R. Field, the superintendent of construction for the contractors, the Risdon Iron Works, is working like a beaver to have the entire steel frame of the huge structure completed inside of four weeks, and will do it if fair weather continues. At the south end of the second section can be seen the great bed of solid concrete built as a foundation upon which the heavy engines and machinery will rest. Around this and occupying the balance of this section can be seen iron roads and other works on which will rest the washing tanks and their accompanying material, as also the immense diffusion batteries and slicing machinery. Several of the batteries are being made ready to place.

On the road to the bridge across the river eight small diameter artesian wells have been dug, and work has been commenced on the larger ones. On the south bank of the river the huge silo-pit yawns like a cavern, and daily grows in size. Already 132,000 cubic feet of earth have been removed, and there is still some 60,000 cubic feet to be taken out.

On the crest of the hill, 200 feet above the level of the factory grounds, is situated the great reservoir, which will be 250 feet long, 60 feet wide and 22 feet deep. It will have a capacity of 1,300,000 gallons, and will have concrete lining; 10,000 cubic feet of earth will be removed.

Midway between the factory and the reservoir on the north bank of the Salinas river will be erected a pumping plant. This pump will work both ways, sending the necessary water to the factory and any overplus to the reservoir.

The pipe for the line from the factory to the reservoir is now being received daily from Portland, Oregon. It measures all the way from 6 to 36 inches in diameter, and will be $1\frac{1}{2}$ miles in length. There will be 1000 tons of this pipe used.

From the reservoir hill, the factory buildings and the town of Spreckels are spread out like a panorama, as is Salinas and the surrounding country. In the town itself the houses painted in various colors make a pretty sight and have an air of comfort about them. One has been occupied, and Tuesday there will be fourteen more turned over to the company and immediately occupied by the men. The remaining twenty-five will be ready in three weeks. The large hotel has been completely closed, and is now receiving its finishing touches, and will be ready for occupancy by the first of May.

Work will be commenced during this week on the bridge which is to take the place of the temporary one now in use across the river. Piles over one hundred feet in length have been received for the piers and will be driven as rapidly as possible. Contractor McMahon, who will build the bridge, says that it will consist of six spans 180 feet in length each, and with the approaches, will be 1000 feet in length. There will be tracks for a railroad to the silo pit, and a wagon and foot road thereon. The pipe line to the reservoir will be built under the bridge flooring. It will cost somewhere near \$50,000, and must be completed by the first of August.—*California Sugar Beet.*

Lehi, Utah.

Up to the present there has been a little over 2800 acres of beets planted; about 600 acres in Lehi, 400 acres in Salt Lake county and the rest in the southern districts. Those planted first are coming up and making a good showing. Those who have not planted will wait a few days, and, if we get no rain, will irrigate their land, as it is too dry now to cause the seed to germinate. In some instances, where the land will stand it, it will be ploughed again to bring the moist soil to the top, and will then be planted. There are only a few fields that will stand this treatment without drying out.

Superintendent Austin was south yesterday, and says planting has stopped there until we get a rain or the land irrigated. Some of the beets planted first are showing up in good shape. Mr. Gardner went to Salt Lake county yesterday to see how the work was progressing there.—*Banner, April 19.*

Watsonville, California.

The weather during the past week has been clear and rainless. For the past three days a hot, dry norther has given us sultry, uncomfortable weather. The hot wind, although damaging grain crops and pastures, has not

affected the beet crop. Beet sowing is going on rapidly, and unless rainy weather ensues most of the crops will be planted before May—about three weeks earlier than usual. The young beets are sprouting vigorously and we hear no complaints of worms or insect pests. Thinning has commenced and several hundred laborers will be in the fields by next week. Labor is abundant this year, and farmers who held off from making labor contracts for their beets early in the season are able to contract at bed-rock prices. We noted several contracts last week closed at 80 cents per ton and one or two as low as 65 cents, the latter price being the lowest ever made in this valley. On account of the open winter farmers have been enabled to get their land into splendid condition. The outlook for a big beet crop in this valley is very promising.—*Pajaronian*, April 14.

Beet Sugar in New York.

The last New York State Farmers' Institute for the season was held at Sidney, Delaware county, March 31. The farmers in that vicinity had become interested in the growing of sugar beets for the new sugar beet factory at Binghamton, which has offered \$5 per ton for beets delivered to the car, and asked for an institute at their place, with speakers who were competent to instruct them in sugar beet culture.

Conductor Dawley not being present, the meeting was opened by Mr. A. R. Eastman, who spoke of the changed condition of agriculture in the Eastern States, of Western competition in dairying and grain growing, how the new beet sugar industry promises to many farmers a business giving them a margin of profit, and introduced Mr. J. E. Rogers, of Binghamton, N. Y., who spoke of "Profits in growing sugar beets and their culture." Mr. Rogers is one of the pioneers in the growing of sugar beets, and is very optimistic in his views of the new industry. He thought it opened a wide door to a profitable business for a large number of American farmers. He said in part:

We pay other countries \$100,000,000 for sugar every year; we make in this country only 6 per cent of the sugar consumed; so there is no doubt in regard to a home market. There are now in this country eight beet sugar factories, and several more will be built this year. To encourage the industry Germany pays a bounty on all the sugar exported, and charges a duty on all imported. This country will encourage the home production of sugar in the same or other ways.

One reason why the outlook is now more hopeful is that we have a better sugar beet than we ever had, and this has been brought about by several years of careful selection. Last year I bought seventy pounds of beet seed and distributed among the farmers on the terms that each should send me two beets as a sample of their crops. Forty of these samples were sent to the Cornell University for analysis. They averaged 16.87 per cent. sugar in only about fourteen. We have demonstrated that we can grow sugar beets as well as the Germans, and with more sugar in them. The sugar beet growers of California

can grow beets cheaper than we can, but their beets contain only about 14 per cent. sugar. The climate and soil that produces the superior fruit of New York State is adapted to growing beets with more sugar in them than the Western beets.

The prices paid for beets range from \$4 to \$6.50 per ton. From fifteen to twenty tons can be grown on an acre. Average land, free from stone, will produce fifteen tons per acre, worth \$75. What does it cost to plough an acre of beets? Smiths & Powell, nurserymen of Syracuse, told me they could grow an acre of beets for \$25. A market gardener at Binghamton says he can grow an acre for \$30. I do not assume that farmers without experience can grow an acre of beets for less than \$40; \$75 will pay for your labor and seed, and give you \$35 for the use of the land.

My advice is, do not put all your eggs in one basket; do not grow all beets or potatoes, or give all your time to the dairy. Try an acre of beets. Give them good culture, charge the crop with all the expense of growing—labor, tools, use of land and fertilizers—and compare the profits with your other crops.

Mr. Eastman spoke of the value of beet tops for feeding cattle. They make excellent feed for cows, and when utilized in this way will reduce the cost of growing the crop. The culture of sugar beets improves the soil, so that the next crop will be a better one. The more the beets are cultivated, the more saccharine matter they will contain.

In answer to questions, Mr. Rogers gave the following cultural directions:

Beet lands are not confined to valleys or flats. Any land that is free from stones, that can be tilled to a depth of 12 to 15 inches, will grow beets rich in sugar. Deep ploughing is essential. The soil should be made friable to the depth of 12 inches. This should be done, not by turning the subsoil to the surface, but by following the plow with a subsoil plow that loosens the subsoil, but does not bring it to the top. Then thoroughly pulverize the soil to a depth of several inches, and thus prepare a good seed bed. It is better to plough the ground early in the spring, then harrow it, and let it lie until the weeds start to grow. Then just before sowing the seed, harrow again, and so destroy the first crop of weeds. Commercial fertilizers do not carry weed seeds to the land, as does stable manure. If the land is fairly rich, 400 to 600 pounds of high grade fertilizer per acre will produce a good crop of beets. This should be sown broadcast and harrowed in. It has not been found profitable to transplant beets when seed can be bought for 12½ cents per pound.

The seed is sown with a seed drill, at the rate of fourteen pounds per acre, putting in the seed from ¾ to 1 inch deep. The rows should be from 18 to 20 inches apart and straight, that they may be more easily cultivated. When the plants are 2 inches high, with a sharp hoe cut them out so they will stand 6 to 8 inches apart in the row. We now have two or three plants in a hill. The work of thinning so as to leave only one plant in a hill must be done by hand. Take hold of the best plant with one hand and with the other pull

up the remaining plants. This is the only slow and expensive work in the cultivation of sugar beets. After the thinning is done, the wire weeder may be used to advantage, and if the field is reasonably free from weed seeds, it will not require much hand-weeding to keep down the weeds. The cultivator should be used often and with care, so as to keep the rows clear of weeds as near the plants as possible. They should be cultivated as often as once in seven to ten days, and if weeds appear, these must be kept down until the beet plant possesses the ground. Cultivation and weeding are usually finished by the 1st of July, and the crop will require but little more attention until harvesting, when the beets can be ploughed out with an ordinary reversible plow.

For topping the beets to prepare them for the factory, we have at present no machinery, and the work must be done by hand. The tops should be cut off at the base of the lower leaves, and may be fed at once or left on the ground for a fertilizer. A large amount of the plant food taken from the soil by the beets is contained in the tops and crowns; if this is returned to the soil, we have put back more than one-half of the fertility which the plant has taken from it. Mr. Rogers said that at a sugar beet factory in Nebraska, one grower, who grew over forty acres of beets, itemized the expense of growing one acre of beets as follows:

Cost of preparing one acre.....	\$1 95
Bunching and thinning plants.....	3 69
Replanting by hand.....	78
Hoeing four times.....	2 50
Cultivating weekly for six weeks.....	3 30
Cost of digging.....	2 05
Pulling and topping by hand.....	6 83
Hauling to cars.....	6 89
Cost of seeds.....	2 41
Cost of machinery.....	93
Total cost.....	\$31 33

The net profit for the 40 acres was \$2200; average tonnage per acre 15¾.—*W. H. J., in Country Gentleman.*

Lehi, Utah.

Manager Cutler returned from a successful Eastern business trip yesterday. He reports increased interest being shown in the beet sugar industry, and capitalists are looking in that direction for profitable investments. The sugar factory for Mr. Nebo will be built in time to handle the beet crop of 1899. Business in may lines is improving, though the war scare is affecting some lines. Mr. Cutler is as enthusiastic as ever over the beet sugar industry, and predicts a bright future for it.

There is strong talk of Messrs. Knight and Loose, of Provo, with other local capitalists, erecting a beet sugar factory between Provo and Springville, in the near future.

All the beet drills owned by the sugar company are now at work putting in seed as fast as possible. Over 500 acres in the southern district are now planted and more than that in Lehi. The work is being pushed in Salt Lake valley and if the weather stays good nearly all the 3400 will be planted in a couple of weeks. Superintendent Austin was south yesterday

overseeing the work down there. He says the land is in a good condition, and so far the prospects are good for a crop.

All of the mother beets are now planted. In all there are about eight acres, four on the bench and four in the old field. This is only about one-half the acreage planted last season, as no more mother beets could be obtained.

In an editorial this morning the *Tribune* says: "Manager T. R. Cutler declares that there is plenty of money in the East, to be had for use by men of judgment and experience in beet-sugar making; he has just returned from talks with capitalists on the matter: and he says further, that he intends to obtain some of this money and increase the number of beet-sugar plants in the West very materially within the next few years. We are glad to hear that Mr. Cutler talks that way; for the field is ripe, and an indefinite extension of the beet-sugar industry is exactly what the Western region most wants and can best facilitate."

A meeting of the stockholders of the Utah Sugar Company was held at its office in Salt Lake City at 4:30 o'clock Wednesday afternoon. Vice President George Q. Cannon called the meeting together and presided over its deliberations. Annual reports were submitted as to the status of the company and read by Treasurer Whitney. The stockholders were highly pleased at the company's condition and expressed gratification over the value of the stock, which was unanimously voted to be worth par. It was decided that stockholders should be paid off in cash on a par basis, any stockholder desiring so to do, to have the privilege of paying the difference and making up a full share.

A board of directors was chosen for the ensuing year as follows: George Q. Cannon, Heber J. Grant, James Jack, John R. Winder, William B. Preston, Barlow Ferguson, Francis Armstrong, George M. Cannon, L. G. Hardy, Thos. R. Cutler, David Eccles, Joseph F. Smith, George H. Taylor. The last two named gentlemen were chosen in place of Elias Morris, deceased, and John Beck, who has disposed of his belongings in the company.—*Lehi Banner, April 12.*

Countervailing Sugar Duty.

A decision was handed down Wednesday by the Board on Classification of the United States General Appraisers upon a protest of Robert Crooks & Co. against the assessment by the collector at Boston of a countervailing duty on an invoice of refined sugar imported from Great Britain. The case has attracted considerable attention in the sugar trade. Under a recent regulation of the Treasury Department, if there is no consular certificate showing the origin of the raw sugar from which the refined sugar is made, the highest countervailing duty is to be imposed. The invoice in question, which comprised 250 bags, was unaccompanied by such a consular certificate, and the collector at Boston accordingly assessed the countervailing German duty of 2.50 marks per 100 kilos. The importers protested that it was impossible to name the country of origin of the raw material, as all descriptions of beet and cane sugars are used indiscriminately in the refining, and further contended that sugars refined in British refinery are the product of Great Britain and not liable to any countervailing duty. The board held that the importers did not comply with the department regulations as to the identification of the origin of the raw sugar which had been changed in condition by remanufacture, and that they had not shown that the regulations were oppressive or unlawful, and therefore overruled the protest.—*N. Y. Journal of Commerce, April 22.*

Are Consulting Engineers a Necessity or a Luxury?

This age is certainly one of specialties in all branches of industrial, intellectual and professional development, and this specializing is carried even to extremes in some cases, notably in certain manufacturing establishments; yet we can not condemn this practice, inasmuch as it reduces cost, and in certain cases has developed certain improvements which would have probably been greatly retarded but for the aforesaid specializing influence.

In the practice of sugar planters this specializing has been confined, as a general rule, to the employment of sugar makers, and, only in recent years, of chemists; such important work as the design of their extensive plants, where small economies might bring about very wonderful results, being left almost entirely to the machinery manufacturers or their agents. This method is practised in two or three different ways, as follows: First, by explaining to several agents or manufacturers the needs of the purchaser, which in a great many cases mean his wishes, independently of any relation to existing circumstances or to conditions which are liable to be developed, and asking for tenders on this explanation, full scope being given to the manufacturer to furnish the means to arrive at the desired result. Second, by placing entire confidence in the ability and honesty of one firm that will agree to furnish the means to secure certain specified results. Third, by buying various machines here and there, and placing them to suit one's self.

Such methods have their advantages, but I believe that their disadvantages more than counterbalance the former. As a matter of fact, if the manufacturers are consulted is it reasonable to believe that there is no charge for such consultation? Is it rational to believe that in business we can ever get something for nothing? Is it equitable to expect that the manufacturer or the contractor should spend his time and cash money in order to give expert advice without remuneration? The charge may not appear as "professional services rendered," but it certainly lurks somewhere, and as defects in the machinery are often covered by putty, paint and nickel-plated accessories, so also is the charge for such service covered in some manner less objectionable. If by dint of good luck and extraordinary business sense on the purchaser's part it does not appear in one bill the charge will be made so as to "catch up" somewhere, be it in some other bill against him or one against somebody else, or perhaps by reducing cost of manufacture or installation with prejudice to safety and efficiency.

Again we find in trade journals and elsewhere advertisements reading thus: "Consulting and Contracting Engineers." Is it possible for a man to judge impartially when his interest guides his judgment? Can he be lawyer and judge at the same time—in the same suit? Is it not a fact that the persons who so advertise are manufacturers' agents, and in most cases advise that machinery for which they are agents in preference to any-

thing else, even if proven superior to theirs? This is a most anomalous position, and in many cases has placed the consultant and the consulted in very awkward positions, to say the least.

However, the sugar planters are not the only persons in Louisiana who have used the methods explained above; almost every factory of any description, a great many buildings, many works of more or less dimensions, started, built and operated in this State, have been evolved out of the minds of persons unfamiliar to a great degree with the requirements of the conditions and in some cases totally unfamiliar with the very principles and laws governing the subject under consideration. Take as an example, the common yet very anomalous conditions which exist in the building trades; the extraordinary business of architect and builder. An architect should know as much about buildings as a builder, but that he should be able to exercise both callings at one and the same time is beyond human possibilities.

The necessity for differentiation between the judge and the attorney in cases at law has been recognized for centuries; the necessity for the employment of counsellors at law is an every-day occurrence; the advantages of a counsellor in cases where a compromise is possible are well known to every business man. Yet when it becomes necessary to make a contract for machinery, to place the same in a factory, which is to lose or make money according as it is poorly or well designed, a counsellor, an adviser, is not thought of, his advice is not considered worth getting, and mistakes are made, occasioning losses which could have paid several times over his services; and more important yet, it is probable that in many instances the expense of a consulting engineer would have avoided the very lawsuits which result in the ultimate employment of counsellors at law and their attendant costs.

However, in order to answer fully the query which heads this article, it seems necessary to consider in detail the duties, the qualifications and the powers of a consulting engineer. His duties are principally to advise—advise in the special branch which he has studied theoretically and practically; advise as to the business relations between manufacturer and contractor on the one hand and the customer on the other, thus giving the latter an even chance of knowledge with those of the former class, who might not be disposed to act fairly with their clients, or who might through better representation be able to sell an inferior article in competition.

Again, to advise as to the proper steps to take under existing conditions—this advice being necessarily given only after due consideration and examination of all the details and conditions which may or may not have a bearing on the success or failure of the enterprise from the engineering and commercial point of view. This is generally the first step taken, and this advice is always in the shape of a report, which clearly states the reasons which lead to the decision therein contained, explaining the conditions under which the plant is expected to work, also giving estimates of first cost, cost of operation and main-

tenance and expected returns. If this report is adopted by the persons interested, the consulting engineer is then employed to make the plans and specifications necessitated by the adoption of the report; tenders are then received, examined and tabulated under his supervision, and awards made; after this comes the actual construction, during which he is the representative of the purchaser, and, as such, is the judge of material and workmanship, as well as of all the other questions raised during the construction of any works of importance. In all cases the certificate of the engineer being, so to speak, a warrant for payment drawn against the purchaser in favor of the contractor, these certificates must never be and never are given by an engineer unless he has assured himself of the satisfactory completion of that part of the work for which the certificate is issued. The duties of a consultant are only completed after he has determined by test or otherwise whether his client has received in full what he had contracted for, and his duties further obligate him to ascertain if the property, material, etc., so acquired is unencumbered through liens or privileges against the contractor.

The duties of the consultant as enumerated above certainly are important, onerous and honorable, and undoubtedly should not be entrusted to any one who has not the entire confidence of those who employ him; those duties further require the employment of well-trained men to fulfil them satisfactorily to all concerned. The question as to the extent of those duties brings to us the natural question, what should be the extent of the powers of a consulting engineer? as well as what should be the position of his employers toward him?

The answer to these questions is dependent upon a great many circumstances and conditions that are of a personal nature, and therefore can not be a direct one. The amount of power to be left in the hands of an employee is always dependent upon the relative amount of confidence existing between employer and employee, and in this case no radical change is to be expected; yet there is a difference, inasmuch as being an adviser, a judge, a representative of the employer, the consulting engineer's position is more nearly that of a partner in business. If his advice and plans are accepted *in toto* his reputation is at stake; he is responsible for the result, and thus his entire capital is at stake. Some individuals concur in the advice of their consultant in every particular; others adopt their main suggestions, making changes to suit themselves in the details. These changes are often the cause of very serious results, which mean losses in efficiency, increase in outlay and consequent bad feeling. It is possibly best to abide by the engineer's decision in all points save the very minute ones, or those which can not affect the results one way or the other. The results are the concrete exponents of the ability of a specialist; they are the cause, the making of his reputation, and thus it is but natural to believe that to do the best will be his aim, specially so if the responsibility of the proposed course rests largely upon him. His powers of inspection should also be supreme, but those of rejection

of material and workmanship might not be vested finally in him, for as a representative of the purchaser, as well as one of the parties interested in results his position would in some cases be awkward and inconsistent. However, it will be found in practice that there are very few cases where the engineer's judgment can not be accepted as the court of last resort, and in such cases a decision, a compromise, is more easily gotten, for the simple reason that every detail of the transaction has been carefully guarded and examined by one fully able to examine it.

The ability to examine brings us to the point where we can speak advisedly of the qualifications necessary in a consultant. The fact that one requires the services of a consulting engineer is only due to the lack of special knowledge; therefore, ability in that special branch is one of the undoubted requirements; an ability which should extend not only to that of a quick recognition of conditions of good design and thorough execution in order to obtain certain results under the above conditions, but should include also a thorough knowledge of the business methods generally in use among the contractors who are in the particular line of work.

His knowledge should be theoretical as well as practical, and he should be well acquainted among manufacturers so that he might make specifications that will not place his client to unnecessary expense in the manufacture of special machinery or of machinery which does not accord absolutely with the general designs of the established standard. However, this acquaintance does not and should not involve such relations as would tend to bias his judgment; he should be untrammelled in the exercise of his judgment by all considerations, and especially the one of being in the employ of any manufacturing concern or one of its licensees.

Thus, ability is not the only requisite; if a power of attorney is given, the person who gives it is particularly careful to give it to one who is reliable and trustworthy; in the same manner, the consulting engineer must be reliable and trustworthy. His honesty must be above reproach and he should be conscientious to a superlative degree; personally and professionally he must enjoy such a reputation that his motives shall never be questioned.

In addition, if he should possess a pleasing manner, considerable tact and common sense by which he shall be able to so advise and direct, that his judgment shall prevail without raising in the heart of the one whose opinion is discarded any feeling of resentment, he will increase his value and opportunities as a consultant.

The several statements made above answer quite completely the question of necessity in the employment of a consulting engineer, but as experience is, after all, the best teacher it might be well to note one of many experiences demonstrating the usefulness of their advice, especially when it is remembered that the experience is one of recent origin.

The writer was called upon to examine and make a report on the installation of an electric light plant in a certain refinery in the State.

No engineer had been employed and the cost was fair as compared to the size of the plant, being a little less than \$3000. Upon examination it was found to be a very poor affair; in fact, when compared to another where an engineer had been employed, one of precisely the same capacity and of very small additional cost, it was apparent, not only to the expert, but to the owners of the first plant, that they had lost \$450 to \$500 in the character of the material and workmanship of this plant by not availing themselves, at the outset, of the services of an expert in that particular branch of engineering.

This little experience seems strange when it is stated that in both cases the same contractor was employed, and further shows the restraining influences which an engineer can have upon the contractors and their methods of working.

There is still one other reason which should be urged in favor of the employment of a consultant in engineering work of any kind and that is urged out of fairness to the bidders and contractors. When tenders are asked upon a definite statement made by the engineer, explaining the conditions and results expected as well as the manner in which those results are to be obtained, then every man offering to do the work for a stipulated price is placed on the same footing. It is a fair and equitable method and one by which the purchaser can by a simple comparison and without going into the merits of the machines or the ability of the contractor determine the lowest-priced man for the same class and character of work.

It is possible that the main question has not been answered affirmatively in a very positive manner, but a careful reading of the reasons *pro* and *con* will undoubtedly prove to the owner the absolute use and necessity for such a profession in a number of cases, and further shows that in all cases there is a great probability ranging close on to a certainty that the employment of the right man would be accompanied by the ultimate saving of money in time, trouble and oftentimes workmanship.

H. J. MALOCHÉ.

What is Adulteration?

The State has a right in the interest of the public health—for each citizen can not maintain a private chemical laboratory—to prohibit the use of unwholesome or deleterious substances in the preparation of food, drink and medicines. In cases where it is practicable it may go further, and prohibit the sale of commodities that are fraudulently named or marked, but this power should be used very sparingly, because it is subject to abuse, and generally the citizen can and must protect himself. If a man's clothes wear out too soon he may go to some other shop; it is of very little use to try to punish the dealer for overstating the amount of wool in them; he did not make them, and if his competitors sell all "wool" suits for ridiculously low prices he must do the same or get out of the business; besides, an article may be all wool and be very inferior; much of it may have been spun from ground rags; it is doubtless wool, and it looks well while new, but it lacks durability.

But the State has no right whatever to prohibit the employment of new substances or new processes in the interest of particular trades or persons. And this is what legislation on food adulteration comes to unless it is very carefully prepared and is managed by sanitary authorities, and not by the parties who are seeking restraining legislation to promote their own trade. The bills introduced into the Legislatures of this State and New Jersey regarding the adulteration of food have very much the appearance of being drawn in the interest of certain trades rather than of the general public. They should be carefully scrutinized before being enacted.

We have objected to most of the oleomargarine legislation because it was designed not to protect the public health, nor primarily to protect the public from imposition, but almost entirely to protect the farmers, who make butter by an ancient process, from the competition of the beef packers who manufacture it by a new and cheaper process. We have the same opinion of legislation to exclude glucose from food and drink; it is advocated generally by people who wish to sell the articles that glucose displaces. Natural glucose is presumably as wholesome as natural sugar, possibly even more so; it is less sweet and therefore less valuable to the customer; whether the glucose of commerce is as wholesome as the sugar of commerce is a point on which medical testimony is required. When the manufacture of glucose began on a large scale the medical profession was disposed to attribute certain diseases, then attracting a good deal of attention, to its use. The doctors may have been mistaken, as they often are under similar conditions, or the process of manufacture may have been improved. The National Academy of Sciences has given glucose a certificate of wholesomeness, which carries conviction unless it can be broken down. Unless its statement can be refuted, no Legislature has any business to forbid its use on sanitary grounds.

The manufacture of glucose is a perfectly legitimate industry. It furnishes a market for a considerable quantity of corn, and it supplies an important article of export. Unless it can be shown, which we believe it can not be, that the product is injurious to health, the Legislature has no business to interfere with it, or to require the packages containing it to bear any marks that would prevent its sale. The waste products in the manufacture of glucose are a valuable food for stock, and it is particularly unreasonable to interfere with its distribution. If the whole glucose business could be destroyed it would probably increase the business of the sugar and cane syrup makers, but no one will pretend that that would justify the destruction of the industry. If the glucose manufacturers should be willing to make terms with interests that are behind this pending legislation it would drop out of sight immediately, but the community can not afford to have its legislative machinery used in that way. The sale of compounded articles under trade names is as legitimate as any other business when the ingredients are not injurious. The customer gets that which answers his purpose at a material reduction in price, and

he is not imposed upon, for trade name itself is a notification that the article is compounded. In the substitution of a cheaper article the public gets the benefit of the lower price, and in the absence of proof that it is deleterious the Legislature has no reason that it would care to avow for attacking it.—*N. Y. Journal Commerce.*

The Work of Reciprocity.

Negotiations for reciprocity arrangements with foreign countries under the Dingley tariff law are likely to be interrupted as the United States enters upon a foreign war. Such an event may require a complete readjustment of tariff rates. Even if this readjustment was limited to the imposition of duties upon tea, coffee and a few other articles, it might require the complete revision of some of the arrangements which have already been well advanced by Assistant Secretary Day and the Hon. John A. Kasson, the special commissioner in charge of this work. The work of perfecting arrangements, regardless of any possibility of change in existing laws, has proved difficult and only recently have drafts of several conventions been transmitted by the ambassadors and ministers here to their home governments. The United States are now awaiting expressions from these governments in regard to the proposed conventions. Some of them may be accepted without change, in view of the careful work done for the protection of home interests by the ambassadors and ministers, but it will be contrary to usual diplomatic experience if several of these conventions are not returned with suggestions for amendment. It will then be necessary for our government to carefully consider the possibility of accepting such amendments without injustice to American interests, and further correspondence will be required with the foreign governments before the arrangements can be promulgated or submitted to Congress for approval. It has required careful consideration of every item before the United States have been ready to submit definite propositions, for it has been necessary to consider not only the whole volume of trade in particular articles in given countries, but the exact probabilities regarding the portion which the United States might secure by a discriminating tariff or by lower rates. This has not been a simple mathematical question, but has involved problems relating to freight rates, methods of financing and the existing prejudices of consumers. In some cases, a mere reduction of rates, even though the reduction was uniform for all countries, would operate in favor of the United States, but in other cases such a change would not promise important results.

Arrangements with the British West Indies have been well advanced for some time, but difficulty has arisen regarding the relations of these islands to the mother country. Great Britain has not been willing to see discriminating rates made in favor of the United States which were not extended to her, but the large share which she already has in the colonial traffic has made this proposition a serious one in its effect upon the colonial revenues. It would be of great advantage to

the British West Indies if they were able to obtain special concessions upon their sugar when exported to the United States. They are willing to offer material concessions to American textiles and machinery if they obtain the benefit of the market for their sugar in this country, but they hesitate to sacrifice the customs duties upon the whole volume of British traffic of this sort. It is probable that the whole matter will have to be adjourned until after it is determined whether the United States shall go to war with Spain and what are to be the relations of the United States with Cuba, if she is admitted to the family of nations. The economic disturbances in Cuba which followed the revocation of the reciprocity arrangement under the McKinley law and had much to do with promoting the present insurrection might not be mitigated if the British West Indies and other countries are given an advantage over Cuba in respect to the sugar tariff. The question of arrangements regarding sugar is still further complicated by the agitation in Europe for the abolition of the bounty system. The prospect that France, Germany, Austria-Hungary and Belgium would abolish export bounties seemed quite promising a few months ago, but was marred by the indisposition of France to act with the others. Those who favor the abandonment of this effort of the leading governments to pull their sugar industry up by the boot straps have not given up hope, but they have naturally aroused the hostility of the recipients of the bounty. The danger which the latter still fear is indicated in a recent Vienna letter in the London *Economist*, received at the State Department, which makes the following statements:

"The international plan of doing away with bounties on the export of sugar has caused a good deal of alarm among the Austrian sugar manufacturers. The Association of Sugar Manufacturers in Central Bohemia held a meeting to discuss the important subject. In this meeting the hope was expressed that the conference of Brussels will not have the desired effect, because France will object to giving up its bounty in disguise, which amounts to about three and a half florins per double cwt. Attention was called to the fact that if an international agreement fails, every effort must be made to prevent Austria from concluding a separate agreement with Germany on the subject, because Austria would be at a disadvantage against Germany, through its unfavorable geographical position, and because Austrian agriculturists are still averse to the manufacture of sugar. The Austrian and Hungarian manufacturers have sent a joint deputation to the governments of Austria and Hungary to plead for the non-abolishment of bounties on the export of sugars, and if this is impossible and Austria can not hold herself aloof from the international desire for abolition, the following stipulations should be made: That all countries producing beet root sugar should abolish bounties on export; that all colonial States, including England, should join the convention, and promise not to grant their colonies any premiums; that the manufacturing season 1898-99 should be re-

garded as a time of transition, in which the old arrangements and the premiums remain unchanged, and that all countries signing the convention agree to prohibit the use of saccharine for any but medical uses."—*New York Journal of Commerce*.

Coffee Duty and the Sugar Trust.

NEW YORK, April 22, 1898.

Editor The Journal of Commerce: I see from to-day's newspapers that the Ways and Means Committee has finally decided to abandon the proposed duty on tea and coffee under the absurd plea that it "would tend to increase the cost of the necessities of life." This cry has been one of the Republican party's pet humbugs to catch the ear of the ignorant voter. Every coffee consuming country in the world levies a duty on coffee (even free-trade England, 3 cents per pound), as it is easily collected; no evasions or frauds are possible, and it is so minutely distributed that the individual does not feel it at all. A pound of coffee produces, as the general public prepares its coffee, about thirty cups, and 3 cents per pound would, therefore, represent $\frac{1}{10}$ cent per cup; yet in deference to this "free breakfast" humbug all sorts of other irksome makeshifts are thought of, such as 1 cent on telegrams, etc., chewing gum, mineral waters, stamps on policies, probably on checks, etc., and if possible later, an income tax. Everything is done to hamper commerce and throw the expense as much as possible on the East, which, as is well known, bears the bulk of the government expenses.

The true opposition, however, at this moment can not be the "free breakfast table," as sugar is taxed and largely enters not only into breakfast, but into every meal. The real objection comes likely from that peculiar power known as the Sugar Trust, which was able during the last tariff discussion to "hold up" final action for four months until it had secured an enormous stock of sugar "duty free" and which did not then talk of a retroactive "tax" (another name for duty) as it now does, when having out of spite gone into the coffee roasting business (with the sole object of injuring a concern that dared manufacture sugar), and were caught short of stock. Then it probably was recognized that as the "internal tax" was applicable only to those coffees already here, and which had been brought in in good faith as "free" under the distinct provisions of the "Dingley Tariff," any fair-minded tribunal would rule that it was only a play of words to say "tax" instead of "duty," and that such "tax" was therefore unconstitutional under the recent Supreme Court decision.

It now becomes necessary to drop coffee off the tax list entirely, so as to get on an even basis with the Arbuckle and other concerns, and many will therefore think that the mysterious influence which it is popularly believed this concern exerts at Washington was again convincing enough to persuade the committee to drop coffee and substitute in its place a multitude of annoying "stamp duties." But anything to please the Sugar Trust; yet what would the latter say if some one proposed a stamp duty on their proprietary "Lion" brand

package coffee? That would probably be called an outrageous proposal.

No one doubts the justice of additional taxation on beer and tobacco, as these are conceded to be articles of luxury, and yet it is very questionable whether these are not also to the poor laboring man, in moderation, not only necessities but also a positive benefit or solace.

On coffee the government not only receives the whole revenue as an additional income without extra expense, as the collecting machinery already exists, but it even, under our system, receives more than it should, as it collects such a duty on the coffee weighed into instead, as it should be, out of the bonded warehouse, the importer thus paying duty on the moisture which evaporates between arrival and withdrawal for consumption.

An additional argument in favor of a duty is also the probability that it would in great measure come out of the extortionate profits of the retailers, who exact 28 to 33 cents per pound from the consumer for coffees which cost them 13 to 16 cents.

It does look as though lower Wall street is the place that has more to say concerning revenue questions than all the balance of the community put together, and when the people finally fully realize this fact it will not do the dominant party any good.—"*Coffee*," in *N. Y. Journal of Commerce*.

Casting Gears in Baked Moulds.

[A paper read by GUS. C. HENNIG before the American Society of Mechanical Engineers.]

I think a word ought to be said in favor of cast gears, if they are made in the proper manner. As cast gears are generally made, when hot metal is poured in the result is anything or nothing—cracked gear or anything else. The strength of such gears can not be determined except accidentally. But there is a way of making cast gears so that they will be nearly as good as the best cut gears, and it is a very simple way. Take a cut pattern and mould it up in a material that will bake pretty hard; then leave the gear right in the mould, and put the whole flask and pattern in the core oven and bake it. The result will be that, as clay or sand expands less than metal, the expanding metal pattern will crowd the sand so that upon cooling the pattern will lie loose in the mould, and it can be taken right out. The cope is then put on, and before the flask is cold the metal is poured into the mould, which is free from dirt or dust. The dust can be blown out with a blower if it is necessary, but there really is not sufficient dust in the mould to hurt the casting. The metal is put into the hot mould, and the result will be gear which is sufficiently good to run in a printing press without any noise. These gears are used on printing presses, and people who use them do not know that they are not cut gears, because if the cut gear used as a pattern has the slightest tool mark upon it, those tool marks will appear in the casting. Such gears are used at the present time. I think the patent on this method expired long ago. Such gears are strong. As the mould is hot when the metal

is poured in, the shrinking or cooling strains are less, and the metal is not chilled so rapidly when it reaches the mould. It is, of course, chilled, but not so fast; and, besides, the hot flask, with all the material in it, helps to anneal the iron during the cooling process, so that an almost uniform condition of metal is obtained in the gear. In ordinary cast gears there may be anything but a true gear. There are shrinking and cooling strains, possibly a bad core, slight cracks in the corners, even though they are not shrinkage cracks. There are surface shrinkage cracks which are, I think, generally disregarded, but they are of importance in considering the strength of a gear. Some loose material will perhaps get into the surface of the gear, and as soon as the metal begins to wear down it will wear badly.

There are other reasons why an ordinary cast gear is never as strong as the formula indicates; and all formulae, except when applied to cut gear and annealed gear, should be empirical rather than rational, for the reason that the factor of uncertainty can not be readily applied to a mathematical—a rational—formula any easier than determining a few strengths of different gear empirically, and then using a formula constructed on those results as a basis. But the method which I have described will give satisfactory results, and can be used for large and small gears with equal facility. These gear patterns require no taper, because the metal expands very much more than the surrounding material, and they can easily be lifted out without any trouble whatever, and the material surrounding the pattern being baked hard, of course has considerable strength, especially when the material has been saturated with some baking material or substance. There will be no difficulty whatever in doing that, and a gear will be obtained which is equally strong in all parts, and one which operates with uniformity. Any one who has seen printing presses run knows how perfect these gears must be in order to run smoothly for long periods of time without the slightest interruption.

I know of gears 48 inches in diameter having been cast that way which ran perfectly, and the pitch line did not change, because when the material begins to cool down sufficiently to be a solid mass the clay or sand begins to cool with it, and the two go together. In the first place the pitch diameter was changed by the expansion of the gear in the mould, but originally that clay was tight to the wheel; and on the other hand, the molten metal coming in will shrink a little more than the mould will afterward, so practically they are the same thing. The gears can not be heard when running, any more than cut gears. If that is true the gears must certainly be run together so nicely that the variation of pitch diameter is immaterial. They can be seen running on all of the new presses of the Walter Scott Company, in Plainfield, N. J. They are putting them on all presses now, since about two years, and no one knows that they are using cast gears instead of cut gears, but they give the same satisfaction. They are experimenting now on larger gears.—*Power and Transmission*.

APRIL 30.

WEEKLY MARKET REPORT.

1898.

SUGAR.	April 23.	April 25.	April 26.	April 27.	April 28.	April 29.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK.
Open Kettle.								
Choice	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ —	
Strict Prime	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	27 1/2 @ 2 1/2	
Prime	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	23 1/2 @ 2 1/2	
Fully Fair	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	21 1/2 @ 2 1/2	
Good Fair	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	21 1/2 @ 2 1/2	
Fair	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	21 1/2 @ 2 1/2	Strong.
Good Common	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	21 1/2 @ 2 1/2	
Common	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	21 1/2 @ 2 1/2	
Inferior	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ —	
Centrifugal.								
Plant'n Granulated.	— @ —	— @ —	4 3/4 @ —	4 3/4 @ —	— @ 4 3/4	— @ 4 3/4	— @ —	
Off Granulated.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 1/2 @ —	
Choice White	— @ —	— @ —	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ —	Very strong.
Off White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow	— @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —	— @ —	— @ 8 3/4	
Prime Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	8 3/4 @ 8 3/4	
Good Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	8 3/4 @ 8 3/4	
Seconds	2 3/4 @ —	2 3/4 @ —	2 3/4 @ —	2 3/4 @ —	2 3/4 @ —	2 3/4 @ —	2 3/4 @ 1 1/2	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice								
Strict Prime								
Good Prime								
Prime								
Good Fair								
Fair								
Good Common								
Common								
Inferior								
Centrifugal.								
Fancy	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ —	
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ 9	
Strict Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 9	
Good Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 8	
Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 7	
Good Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 6	Dull.
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
Inferior	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ —	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80 ..	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugals, 96 ^o ..	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	5.15 @ —	5.15 @ —	4.22 @ —	Strong.
Standard A	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	5.03 @ —	5.03 @ —	4.10 @ —	
Cuba, 96 ^o , Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50 ^o	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	11s. 4 1/2 d.	11s. 6 d.	11s. 6 d.	11s. 6 d.	11s. 7 1/2 d.	11s. 7 1/2 d.	10s. 6 d.	Steady.
A. & G. Beet	9s. 8 1/2 d.	9s. 5 1/2 d.	9s. 5 1/2 d.	9s. 5 1/2 d.	9s. 6 d.	9s. 6 d.	8s. 8 1/2 d.	Firm.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Standard Granula'd ..	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	Strong
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Apr. 20	Tons	317,997
At four ports of Great Britain to	Apr. 16	"	78,500
At Havana and Matanzas to	Apr. 20	"	97,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APRIL 29, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	82	12,854	1,112
Sold	82	12,977	1,112

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO APRIL 29, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	22,278	1,895,666	184,691
Sold	22,278	1,877,694	184,694
Received same time last year	31,817	1,921,514	217,290

APRIL 30.

WEEKLY MARKET REPORT.

1898.

RICE.	April 28.	April 25.	April 26.	April 27.	April 28.	April 29.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	2 25@4 75	2 25@4 75	2 25@4 75	2 50@4 75	2 50@4 75	2 50@4 75	— @ —	Strong.
CLEAN, Fancy.....	5 5/8@6 1/4	5 5/8@6 1/4	5 5/8@6 1/4	6 @6 1/4	6 @6 1/4	6 1/4@6 1/4	5 1/4@6	
Choice.....	5 1/4@5 5/8	5 1/4@5 5/8	5 1/4@5 5/8	5 1/4@5 5/8	5 1/4@5 5/8	5 1/4@5 5/8	5 1/4@5 5/8	Very firm.
Prime.....	5 @5 5/8	5 @5 5/8	5 @5 5/8	5 @5 5/8	5 @5 5/8	5 @5 5/8	4 1/4@5	
Good.....	4 1/4@5	4 1/4@5	4 1/4@5	5 @5 5/8	5 @5 5/8	5 @5 5/8	4 1/4@4 1/4	
Fair.....	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@5	4 1/4@5	5 @5 5/8	4 @4 1/4	
Ordinary.....	4 @4 1/4	4 @4 1/4	4 @4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	3 1/4@3 1/4	Nominal.
Common.....	3 1/4@4	3 1/4@4	3 1/4@4	4 1/4@4 1/4	4 1/4@4 1/4	4 1/4@4 1/4	— @ —	
Inferior.....	2 1/4@3	2 1/4@3	2 1/4@3	2 1/4@3 1/4	2 1/4@3 1/4	— @ —	2 @2 1/4	17 00@18 00
No. 2.....	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	
BRAN, $\frac{1}{2}$ ton.....	11 00@—	11 00@—	11 00@—	11 00@—	11 00@—	11 00@11 50	12 00@—	
POLISH, $\frac{1}{2}$ ton.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING APR. 29, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received.....	8,057	584
Sold.....	7,428	3,807

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO APR.
29, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	461,754	7,567
Last year.....	875,682	9,088

Sugar.

The sugar market was strong in tone at the end of the week, with receipts from plantations very good. Considerable movement was recorded.

Molasses.

No open kettle goods in first hands. Centrifugals dull.

Rice.

Receipts of rough rice were meagre and offerings light at the end of the week. The demand was sufficient to promptly absorb all tenders at full prices. Clean was strong with moderate offerings.

Sugar in London.

The raw market has been affected by the near approach of Easter holidays, and prices close rather below the highest point of the last few days. The recent important purchases of beet by the American refiners have given the much-needed stimulus to the market, and further transactions of a similar character are confidently expected. The position of sugar in America shows greater strength than of late, the weekly receipts being much lighter, while the Cuban figures show a tendency to steadily decrease. Little or no alteration has taken place in the value of the cane sugar this week, there being an absence of business so far as refining kinds are concerned, but grocery sorts, which are sparingly offered, have met with more inquiry and full to rather dearer rates have been paid for the lower and medium descriptions. Fresh supplies of this sugar come forward only slowly from Trinidad, while up to the present no arrivals of crystallized sugar from Barbados have taken place, the crop in that island being reported as seriously affected by drought. The imports of crystallized raws to London for the week ending 7th inst. amounted to 844 tons, and for this year to 6,649 tons, against 10,895 tons in 1897.

The market for home refined remains without change, and with only a limited supply of centrifugals on offer and a fair demand for all useful qualities, prices are unaltered. Continental granulated was firm, and a large business was done early in the week both for near and forward shipments at $\frac{3}{4}$ d. to $1\frac{1}{2}$ d. advance; since then, however, the tone has become quiet and the advance has been lost. Cubes and cut loaf are in fair request and values are unchanged: the medium kinds still show excellent value, and should command a ready sale. Dutch and Austrian crushed have met with a better demand, and a fair business is reported at steady prices; while syrup and molasses are selling well at late rates.—*P. M. Review*, April 5.

Sugar in London.

For reasons which are altogether obscure, the market has taken a downward turn, more particularly with speculative beet, on which, however, the basis of values is supposed to be fixed. So far as the actual demand from the trade is concerned, business has hardly recovered itself since the Easter interruption, and although a great many kinds of sugar are now as cheap again as they have recently been, buyers do not seem inclined yet to anticipate their requirements. Unfavorable views have been taken of the small exports of German sugar during March, amounting, as they did, to only 90,000 tons, against 163,000 tons last year, while an additional cause of weakness in the market is to be found in the large receipts of sugar in America, the fear of war also causing large exports of sugar from Cuba. A good deal of the disturbance to the otherwise fairly strong position of sugar arises, therefore, from an outside influence, unlooked-for, and, it may be hoped, temporary, and a renewal of confidence would speedily follow a return to normal conditions. Transactions in cane sugars remain of a very limited character, only a small business having passed privately, principally in grocery kinds, at previous rates. The imports of crystallized raws to London for the week ending 14th instant were much heavier than of late, amounting to 2653 tons, raising the total for this year to 9302 tons, against 12,468 tons in 1897.

The refined market reopened on Tuesday with a very quiet tone for centrifugals, but a good business has since been done in yellows from 8s. 6d. to 9s. 6d., which now show exceptionally good value and are well worth attention. White sugars still remain scarce and fully maintain their values. Continental granulated has been slow of sale, and as some few parcels have been pressed for sale quotations are from $\frac{3}{4}$ d. to $1\frac{1}{2}$ d. cheaper for ready and near sugars, but about steady for forward shipments; cubes and cut loaf are in fair demand, and prices remain quite steady, while Dutch and Austrian crushed, although cheap, are dull of sale; quotations, however, are unchanged. Syrup and molasses are in good request at about previous rates.—*P. M. Review*, April 16.

Sweets in Queen Bess' Times.

During the Elizabethan period there grew up in England a great national liking for sweet things. Not merely was this seen in the general taste for sugar comfiture, but it was manifested in the general demand for sweet wines, the rich sherries, the charneco, the sack, the sugary almond-flavored sack-posset, and other drinks of the same class. In drinking, as in eating, the increase of appetite for sugar grew by what it fed on. Though not a sweetmeat in the strict sense of the term, "sack-posset" so largely represented the taste of that time for sweetness and flavor that the recipe of Sir Fleetwood Shepherd, given by Mr. Howard Staunton in his Shakespeare notes, is worth quoting: "To make a sack-posset, take two quarts of pure good cream and a quarter of a pound of the best almonds. Stamp them in the cream and boil with amber and musk therein. Then take a pint of sack in a basin and set it on a chafing-dish till it be blood-warm. Then take the yolks of twelve eggs, with four of their whites, and beat them well together, and so put the eggs into the sack. Then stir all together over the coals till it is as thick as you would have it. If you now take some amber and musk and grind the same quite small with sugar and strew this on top of your posset, I promise you that it shall have a most delicate and pleasant taste." There was another mixture of the same class called "rambooz," made of eggs, ale, wine and sugar.—*Gentleman's Magazine*.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—BY A FIRST-CLASS MACHINIST and engineer, fifteen years' experience in refineries and sugar houses; can give first-class reference. Address HENRY WESTON, 740 Poydras street, New Orleans, La. 4-26-98

WANTED—BY A FIRST-CLASS OPEN KETTLE, open pan and vacuum pan sugar maker, a position for this coming grinding season; best of references can be given. Apply to FELIX SERPASSE, St. Bernard P. O., La. 4-27-98

WANTED—POSITION ON A PLANTATION AS assistant manager, time or book-keeper; could take charge of a stable; I am a married man, 30 years old; have good references as to habits and capability; all letters will receive prompt attention. Address WILLIAM DETRICH, Hammond, La. 4-23-98

WANTED—A POSITION WITH A LARGE firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address SUGAR MAKER, care this office 4-16-98

WANTED—A POSITION AS CLERK OR ASSISTANT overseer, on sugar plantation; can give best of references as to ability and character. Address 300, care PLANTER.

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommends the best in the State. Address J. FRANZ, Eureka, St. Louis county, Mo. 4-6-98

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employer and will guarantee perfect satisfaction. Address J. R. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS in the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98.

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98.

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98.

WANTED—A CARPENTER, WITH LARGE experience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; A1 reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' experience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98.

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Painscourtville, La. 3-18-98.

WANTED—A POSITION AS CHIEF ENGINEER and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES position at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—EXPERIENCED GERMAN AGRICULTURIST, beet sugar culture a specialty, desires position; best references. Address Box 309, Irvington, New Jersey. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Piety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address Box 16, Ponchatoula, La. 3-26-98.

WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assistant boiler in some large factory. Best of references given. W. B., Box 62, Donaldsonville, La. 3-31-98.

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98

WANTED—TWO YOUNG MEN, HAVING had considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; he best of references. Address EXPERT, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2439 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2600 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT ENGINEER; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louisa street. 2-3-98

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WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS; Gleasmar, La. 1-28-98

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WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBER, Central, La. 1-20-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98

WANTED—POSITION AS CHEMIST OR SUGAR maker; has had five years' experience as both; best of references furnished. Address A., care this office. 1-17-98

WANTED—A POSITION AS CHIEF OR ASSISTANT engineer; has had fourteen years' experience and can furnish first-class references. Address F. O. W., Larcueville P. O., La. 1-18-98

WANTED—A POSITION AS SUGAR DRIER; has had seven years' experience; can furnish good reference. Address H. L., 618 St. Louis street. 1-18-98

WANTED—A FIRST-CLASS PLANTATION hostler. Address 155, care of this office. 1-11-98

WANTED—BY A FIRST-CLASS SUGAR maker, a crop to take off for the season of 1898; A1 references from former employers. GEO. H. DOUGLASS, Covington, La. 1-11-98

WANTED—POSITION AS STORE OR BOOK-keeper or other clerical position on sugar plantation, by experienced and competent married man; speaks English and French; references as to competency, reliability and sobriety. Address MAX. F. O. Box 1066, New Orleans. 1-17-98

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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AND

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Kansas Sugar Growers' Association,
Texas Sugar Planters' Association.*

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Notes from Trinidad.

In this issue of THE PLANTER there will be found an illustrated series of notes on the British West Indian Island of Trinidad, written by Mr. F. E. Coombs, so well known to us in Louisiana, because of his original researches into the mysteries of sorghum culture and sorghum sugar content of the canes made some years back at Mr. Daniel Thompson's Calumet plantation, under the direction of Mr. Thompson.

Mr. Coombs has been out to Trinidad in chemical control of one of the large sugar houses, where the Lillie multiple effect has been recently installed, as has been described in this journal. Mr. Coombs is an excellent chemist, a careful observer and a good writer, and these occasional notes of his, jotted down now and then as some of the odd things of life in the tropics attracts his attention, will be found quite interesting to all students of the sugar industry.

The Louisiana Cane Crop.

Several days of warm and seasonable weather have occurred during the past week and the young cane has responded to their genial influences quickly and encouragingly. Some rain has been had, but more would not come amiss, the crop being still a little backward and requiring the warm and gentle rains of spring to change its somewhat yellow tinge to the green glow of active growth. Such deficiencies as the young cane exhibits here and there are trivial ones and will readily yield to the generous treatment which Mother Nature has now almost certainly in store, and the general prospect continues to be above the average.

The Louisiana Sugar Planters' Association.

The May meeting of this association will be held on Thursday evening, May 12, at 8 o'clock, at its usual meeting

place 339 Carondelet street. President Rost has selected for discussion the subject of "The Comparative Advantages of Spring Planting and Fall Planting on Louisiana Sugar Plantations," and an unusually large and interesting meeting is anticipated. A great many of our planters, in fact all of them, are qualified to make instructive remarks on this topic, and it is one to which many of them have given earnest consideration, both this season and in previous ones. Dr. Stubbs will doubtless be present with his corps of scientists from the Experiment Station, and one of the most valuable and instructive discussions of the year will unquestionably be in order.

May Days in Ante-Bellum Times.

In our issue of April 16 we gave a number of interesting extracts from the diary of that distinguished gentleman and ante-bellum sugar planter, Mr. H. Octave Colomb, of St. James parish, whose recent death was referred to in our issue of February 26.

From the same diary we now give our readers a lot of interesting data concerning sugar plantation matters in the month of May from 1851 to 1860, and we supplement these with extracts from the diary of that other St. James pioneer in Louisiana sugar manufacture, Mr. Valcour Aimé. Mr. Colomb's diary says:

1851.

May 1, clear, cold; ratoons, 18 inches high; corn, 3 feet; cold weather for season; eleven 2-horse plows in old ground ratoons; hoes in plant. 4. River falling rapidly, three feet below high water. 5. Cold; cane and corn turned yellow by late cold. 9. Cloudy, warm; showers in afternoon. 10. River falling rapidly; cholera severe in Lafourche. 12. Fair sugars, 6 cents; reboiled molasses, 35 cents; port, \$15; corn, 48 cents; cotton, 6 to 10 cents. 16. Peas coming up; corn, five feet high; cane about three feet. 20. River, 7½ feet below high water. 30. Corn tasseling.

1852.

May 1, cloudy, warm; corn four feet high; cane growing well; ten 2-horse plows in old

ground ratoons; hoes finished putting dirt to plant. 4. Very warm weather. 11. Bought peas at \$1.87½ per bushel; want rain much. 14. Corn growing well; cane looks well; more advanced than last year; that is plant; ratoons backward; peas coming up; pork \$17 per barrel; fair sugars, 5 cents; corn, 60 cents per barrel. 19. Twenty-six days no rain. 23. Light rain. 24. Drift passing; Wilkins place above overflowed. 29. Good rain to-day. 30. Enough rain.

1853.

May 1, cloudy; plant one foot high dying; corn very good; ratoons very thick but small; light rain in afternoon. 4. All hands in new ground ditching and planting corn. 5. Seven 2-horse and four 1-horse plows in ratoons opening middles; rain enough; field begins to look green again; 70 arpents peas planted. 14. Thermometer 90 deg. in shade. 19. Adam began to make hogsheads. 20. River rising; is within three feet of top of levee. 22. Cane very backward, especially plant; corn tasseling. 24. Thermometer 98 deg. 25. Clear, cool for season.

1854.

May 1, clear, cool. 2. Plows in ratoons opening middles cane backward, especially plant; river gone down three feet from this year's high water. 5. Received one young Durham bull and two heifers from Kentucky for \$300. 7. Purchased ninety barrels lime at 90 cents from flatboat. 15. Crop growing very well since a week. 30. Some cholera along the coast. Cholera at Lapice since two weeks—lost fifteen negroes.

1855.

May 1, clear, warm; crop very backward, ratoons thin, corn good, but wants rain; river low; fair sugar, 5½; ten 2-horse plows in ratoons opening middles. 8. Crop very bad and suffering very much from drought; no rain for two months; cane dying. 15. Pasture dried up; Some cholera on coast; Amedee lost one negro man and three children. 21. No rain since 8th of March; crop looks abominable; river near low water mark and falling; ground all cracked with drought. 26. Cholera on many plantations. 31. Rain at noon, first since seventy-five days.

1856.

May 1, flooding rain. 3. 82 deg. in shade; river low and rising; fair sugar, 7½; molasses, 38; plant cane looks well. 14. Too much rain; cane looks yellow and not growing. 16. 88 deg. in shade. 20. Temperature 94 deg. at 3 p. m. on front gallery; cane coming up since the rain stopped. 23. Warm; temperature 96 deg.; very warm weather since a few days. 25. Temperature 98 deg. on front gallery; much drift in river. 26. Want rain.

1857.

May 1, rain; cane very backward; river on a stand; sugar 11 cents, fair; molasses 63 cents, rebolled. 11. Cane growing slowly; corn small; want rain; crop very backward. Enough rain on 15th. Frost on 19th; cane turned yellow by water and cold. 31. River rising slowly.

1858.

May 1, cloudy; river rising to within one foot of high water mark; woman gang working on levee. 2. Plant cane suffering from drought. 3. Just rain enough; river up four inches since 1st. 6. Crevasse in St. Charles at Mr. J. B. Labranche's. 7. Plows in ratoons; planted peas. 8. River at highest water mark; crevasse at Nadorbe's; Labranche not stopped. 15. River gone down four inches. 21. Labranche crevasse about stopped.

1859.

May 1, warm, clear; 2. Rain, ratoons coming out since a few days; field begins to look green; corn very good; river on a stand. 7. Flooding rain; crevasse in West Baton Rouge; 14. Temperature 96 degrees on gallery; ratoons growing well; corn good. 27. Bonnet Carre crevasse fifteen acres wide; one at Lobdell's in Baton Rouge.

1860.

May 1, clear; plows barring off ratoons and plant; crop improving; plant good; ratoons fair; corn good; river going up fast. 10. want rain; crop backward. Good rain on 19th; cane small for season; plums begin to ripen. 25. Peas all up; crop improved much since rain.

Mr. Valcour Aimé's diary says:

1851.

May 1, north wind. Begun ploughing plant cane in old ground for fifth time on 3d. Heavy rain on 4th. Size plant canes in new ground from four feet six inches to five feet six inches, and in old ground about four feet, and color not so good where there had been no pease. Stubbles in new land are fine, and in old land they measure about four feet six inches with the leaves stretched up. River rises some on 28th, 29th and 30th. Five men from Pittsburg unloaded a coal boat of 3750 barrels in nine and a half days.

1852.

May 1. began hauling wood from forest into back pasture. 4. Through working plant canes for the fifth time. Weather cloudy since three days, and threatening rain. 8. Ploughing and hoeing stubbles for the fourth time. Weather too dry. Size of canes with leaves on the 24th: plant canes are fine and measure from 4 feet 6 inches to 6 feet. Stubbles having appeared late are from 3 feet 6 inches to 4 feet. River is 24½ inches below high-water mark. 28. Through the seventh weeding of plant cane at midday, and began to work the stubbles for the fifth time. 30. Rain from 2 o'clock in the morning until daybreak. Ditches and main canal overflowing.

1853.

May 1, light rain; planted 98 arpents peas, although ground was not wet enough. 3. Rained for two hours, and as much as needed for the last sowing of peas. 8. Peas well up. 12. Through working plant cane with harrow; river has risen a little, not so high as in 1849; have had strawberries in abundance from 10th of April to 15th of May. On 20th and 21st, wind north, thermometer 14 deg. R. above

zero. On 22d, wind north, and cold enough to wear heavy clothing in the morning; plant cane not very thick in row, but generally of the same height everywhere, and measures from 4 feet 6 inches to 5 feet, with leaves; stubbles are very thick and have a very fine appearance; they measure 4 feet 6 inches, but are not as large as plant cane.

1854.

May 1, began ploughing and hoeing stubbles for the second time. Rain on 5th during the whole day. Sowed peas on 6th; cholera on Lapice plantation, 26 fatal cases. Light shower on 14th; size of canes with leaves—plant cane, from 3 feet 6 inches to 4 feet; stubbles are much larger, and measure 4 feet 6 inches to 5 feet, some are 5½ feet. Began ploughing stubbles for the third time on the 27th, and to hoe them on the 30th; river has risen one foot since a few days.

1855.

May 1, stubbles mark the row. 3. Through ploughing the cane second time, and begun ploughing corn. Harrowing stubbles for the fourth time on the 22d.

Free Site for a Central.

THIBODAUX, La., May 2, 1893.

Editor *Louisiana Planter*: I have 493 acres of fine sugar lands situated in Labadieville, Assumption parish. Will donate site for a central sugar factory to party or parties seeking a desirable site of this kind. Any further particulars can be had by writing me at Thibodaux, La., or to Thos. A. Badeaux, Constitution Convention Hall, New Orleans, La.

C. G. BADEAUX.

Sorghum as Forage.

The Chino (Cal.) *Champion* says it is now recognized that forage will be scarce this summer. Vail & Gates, in order to meet the situation and provide forage for their own extensive herds through the coming dry months, are arranging to contract for the raising of sorghum for feed. For this purpose they have received five tons of seed from Kansas, and will furnish it to farmers on the contracts. Vail & Gates will lease some of their own land for this purpose, and altogether expect to contract for 300 to 400 acres. They offer to pay for the cured forage \$4 per ton, which we should imagine a very fair price. They expect to feed the cured forage with beet pulp, which they say will give excellent results.

Mr. John Hill, of West Baton Rouge, was registered at the St. Charles on Tuesday.

Mr. Louis Le Bourgeois, a prominent planter of St. James parish, was registered at the Cosmopolitan a few days ago.

Mr. F. A. Lepine, a well-known gentleman from Lafourche parish, was registered with Mrs. Lepine at the Hotel Royal a few days ago.

Mr. Chas. A. Bibbins managed the Total Wreck plantation of Mr. Baldwin, of St. Mary parish, last season. Mr. Bibbins is a thorough all round plantation manager, and is familiar with all the details of the business.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: There is nothing of moment in the wind, weather or water line to record this week, save that the reputation of our local observer, Mr. W. D. Park, has been established as a prophet of the first order, or of the first water, might be more appropriately said. Several weeks ago, as duly recorded in this column, Mr. Park predicted that the Mississippi would not reach a stage in excess of 28 feet above extreme low water mark at Donaldsonville this spring. This point was attained last Saturday morning, and immediately thereafter the yellow flood began to recede, continuing the process slowly but steadily up to date, when the gauge indicated a stage of 27.45 feet above low-water mark. Warm weather is here at last, and if an occasional rain will descend upon us we shall have the present measure of our meteorological aspirations and desires fully gratified.

The foremost topic of interest in planting and social circles this week has been the annual meeting and dinner of the Ascension Branch of the Sugar Planters' Association of Louisiana, which took place Tuesday afternoon at the rooms of the association. The executive committee met shortly after 12 m., and was in session over half an hour, examining into the finances and other internal affairs of the organization. When Hon. Henry McCall, president, called the association to order there were present besides himself Cols. R. McCall, J. E. St. Martin and A. D. Vega, Capt. John T. Nolan, Drs. W. M. McGalliard, J. D. Hanson and E. K. Sims, Messrs. E. N. Pugh, Walter I. Barton, Myer Lemann, C. Kline, Henry C. Braud, O. A. Bullion, L. E. Bentley and Secretary and Treasurer F. B. Lemann; and among those who came after the business meeting was over and the dinner in prospect were Judge Walter Guion, District Attorney G. A. Gondran, Prof. R. N. Sims, Jr., Charles Maurin, Adolph Netter, W. C. Hanson, Sheriff S. H. St. Martin and Dr. J. G. Heard; while among those who had signed to come, but kept away by various unavoidable circumstances were Messrs. J. P. Kock, E. H. Barton, Bernard Lemann, Capt. R. Prosper Landry.

The minutes of the April session and the report of the executive committee were read and approved. The latter showed that the association has twenty-two full and fifty-five associate members, that the debts are all paid and a balance remains in the treasury, and that the present basis of receipts and expenditures can be safely continued. The executive committee also reported having authorized the house committee to renew the lease of the club building another year and to continue the subscriptions to the newspapers, magazines and other periodicals now received by the association.

The ball committee reported favorable progress of preparations for the entertainment to be given on the 11th inst., and the dinner committee said its report would be ready for discussion at the appointed hour, 3 p. m. The

president stated that at the suggestion of the dinner committee and in pursuance of his own inclinations in the matter he had addressed to the two living ex-presidents of the association, Hons. Wm. Porcher Miles and J. L. Brent, pressing invitations to honor us with their attendance at the annual meeting and dinner. Mr. Miles had replied in a sincere and cordial letter, expressing deepest appreciation of the invitation and keenest regret that failing eyesight and impaired digestion rendered his attendance impracticable. He declared his great interest in the welfare of the association and undiminished friendship for the members, individually and collectively, and hoped the A. B. S. P. A. would continue to live, grow and prosper. The letter was ordered spread upon the minutes. Gen. Brent had left New Orleans before his invitation reached there, hence no response from him was at hand. Mr. Kline moved that all the present officers of the association be re-elected, and although President McCall demurred, the motion was adopted without other opposition. The officers and directors thus chosen to serve another year are as follows: Henry McCall, president; Bernard Lemann, first vice president; Dr. W. M. McGalliard, second vice president; F. B. Lemann, secretary and treasurer; J. P. Kock, R. McCall, Jno. T. Nolan, E. N. Pugh, R. N. Sims, J. E. St. Martin, C. Kline, and the officers above named, board of directors. President Henry McCall returned thanks for the compliment paid him in his unanimous re-election and expressed hopes for a revival of interest in the association. The organization had in the past exercised very potent influence for the welfare of the parish and State, and the members should strive henceforth to sink their differences and unite on common grounds to build up a strong sentiment to that end. The list of standing committees was examined and the president stated that no reason for making any changes therein was apparent.

The communication from lady relatives of members asking the privilege of visiting the reading room of the association between specified hours daily, excepting on Sundays and meeting days, was called up, and some opposition to the application being manifested, it was withdrawn, the statement being made on behalf of the petitioners that if the sentiment of the association was not unanimous in favor of the granting of the privilege sought for they did not desire the subject to be further considered.

On Mr. Kline's motion the house committee was empowered to take such action as might be deemed proper and advantageous with reference to supplying the club building with electric lights and fixtures. The president appointed Dr. McGalliard, Mr. Kline and Dr. Hanson as the house committee, and there being no further business excepting the dinner to dispose of, the association adjourned to the vicinity of the sideboard, where Cols. Dick McCall and Tony Vega demonstrated their skill in the harmonious and palatable blending of sundry liquors by way of an overture to the banquet.

Your correspondent had hoped to present

to-day an account of this veritable feast of reason and flow of soul, but his screed has already grown to such a length that the relation must perforce lie over for another week. Suffice it for the present to say that no previous dinner given by the A. B. S. P. A. was more prolific of enjoyment to the participants, or more beneficial and gratifying in its apparent effect upon the welfare of the association than that of Tuesday last. It came just in the nick of time to serve as a celebration of Commodore Dewey's glorious victory at Manila, and the hope is expressed that the ball next week will bear a similar relation toward a triumph quite as brilliant at Porto Rico or Havana. There are perhaps few portions of the country where the patriotism of the people is greater than in

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather during the past week has not been as favorable as it could have been. There were several windy days and a deficiency in moisture. The rainfall during the month of April was 2.40 inches. The lowest temperature was on April 6, when the thermometer registered 58 deg., and the highest on April 16—88 deg. The young corn and cane have grown very little, and seem to be waiting for a rain, which all hope will soon fall. The application of fertilizer continues. Some early corn has been laid by and pease planted in it. There has been very little improvement in plant cane, but the stand of stubbles is all that could be desired.

Mr. Leonce M. Soniat, one of the most progressive planters in the State, drove us over his fine properties—Whitecastle and Cedar Grove—recently. On the latter place there is some complaint about the spring plant, but even there the stand is much better than on most places, while on the former place it is splendid. Mr. Soniat has only a small acreage in corn, for he has found that cane can be successioned with good results in light soils where pease are planted in the cane rows when the canes are laid by. With this end in view Mr. Soniat fertilizes heavily and keeps the better part of his stubble the second year, and it is in this second year's stubble that the pease are planted. The second year's stubble averages over twenty tons per acre. The succession plant cane yields about as well as that planted in land that had corn and pease the year before, while this year the stubble from last year's succession cane is the best on the places. Mr. Soniat will this year have his railroad tap the railroad of the Whitecastle L. & S. Co., so as to reach the cane of the farmers in Baltimore tract back of Whitecastle.

We were given an instance last week of the success attending the earnest efforts of a good tenant and his family on a large sugar plantation in this parish. In 1894 an old colored tenant died, and a white man then filling the position of hostler on the place was persuaded to take the colored tenant's place, the planter lending him the money necessary to buy out the heirs of the colored man. The white man persevered, and was able, assisted

by his children, among whom were two boys, about grown, and notwithstanding the low price of cane which followed his advent in the cane business, managed to live and meet his obligations and make comfortable provision for two children, who got married. At the close of last year the tenant had eight fine large mules, with the necessary carts, plows, implements, feed, etc., to make a crop this year, all paid for, and \$1000 in bank. This was done in four years, and two of these all will admit were hard ones on those interested in cane. Of course every one can not expect the same success, but why should young, able-bodied men be seeking \$30 to \$40 clerkships, when they have such opportunities as the above, in an industry equally as honorable, and not any more laborious, open to them, is a hard nut to crack.

Mr. Thomas E. Matthews, of Rosedale, La., has sold his Trinity plantation of Bayou Grosse Tete to Mrs. Aloysia Webre, of St. James parish. In ante-bellum days Trinity belonged to Dr. George W. Campbell, and subsequently to the late Emory Clapp. It contains a superficial area of 1200 acres, and is splendidly located for a central factory.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: The meteorological conditions that have prevailed here during the past two weeks have been highly satisfactory to the planting community. The streak of favorable weather was badly needed to enable the planters to catch up with their work, which had fallen behind earlier in the season owing to the incessant rains then prevailing. It is quite safe to say that more field work has been done during the past two weeks than in the whole month prior thereto. The mornings and nights are still somewhat cool, and cane is not, therefore, growing as rapidly as it will later on with hotter days. Despite the fact that we are now in the month of May, the exact status of the growing crop is not as yet altogether clear. From the first, stubble and fall plant have been promising, but of late more or less complaint has been heard as to spring plant, which seems to have suffered considerably by the wet weather of the early spring. It is but proper to state, however, that the majority of these complaints relative to spring plant come from the lower portion of the parish. In this connection the fact is recalled that last year the crop in that section was not as good comparatively as that in the middle and upper sections. It may be that in this particular matter history will repeat itself this year. Be this as it may, it is quite certain that the crop—i. e., stubble—is not as promising as it was a month or so ago.

In the upper portion of the parish several planters claim that their cane is as promising now as at any time since this crop began to grow.

The river has been falling here during the past week and all danger of high water seems over. For this blessing our people are devoutly grateful.

Another thing that has conduced to the

gratification of the planters is the fact that the sugar market has stiffened up recently and firm prices are looked for next fall.

Complaints are heard here and there of cut worms, which are destroying the young corn.

There will be a reduced cotton acreage here this year, but the cane acreage has been correspondingly increased.

All plantations report an abundance of labor. The hands seem perfectly satisfied with the prevailing scale of wages.

Although not badly needed, a heavy shower, followed by continued clear weather, would prove acceptable to WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The weather has at last seemed to come to the conclusion that winter was over. To-day and yesterday were warm, and last night was the warmest that we have had for some time. With the end of April there seemed to be a termination of the cool weather that has so distressed the good farmers and made them long for a change. April was very trying, every rain bringing in its train cold days and cooler nights. In consequence the crops have not grown as rapidly as we had hoped, and as a result of the cool snaps the leaves of the cane were not of that bright green tint so welcome to the eye. A cool spring, so many say, is favorable to the crops, particularly to the corn. Speaking of corn there has been some of it already laid by in good shape. The corn crops of Messrs. Oscar Himmel and Charles Boudreaux are exceptionally forward and promising.

The dry weather has enabled a large amount of field work to be accomplished, and the planter is up with the crop. The plant cane is beginning to tiller, or sucker, but in many places it will have to sucker wonderfully well to furnish anything like a good stand.

Mr. Honore Dugas has moved into his new house, while work on the residences of Messrs. Munson and Godchaux are being pushed rapidly to completion. Mr. Clarence Barton, on Little Texas, is erecting a new house that promises to be a model of comfort and convenience. These new residences show that all of the improvements are not being put in the sugar houses and machinery, a charge so often made by the gentler sex of the planter's family.

A crevasse in our neighboring parish furnishes food for reflection, and illustrates the folly of levee-building on the present lines. The engineers speak of it as a small matter, but to the people who lose their crops it is a matter of deep and serious moment, and the pooh-pooh of the engineers is not reassuring. Experience shows plainly that unless some other method is adopted in connection with the levees that the lands in the lower part of Lafourche will be flooded whenever there is even moderately high water. Unless the lower part of the Lafourche is cleaned, we will have this trouble every year, and there will be injury wrought on people least able to stand it. True, looking at it from a selfish standpoint, we people in Assumption have nothing to complain about; to be sure, we are not hurt

by the breaks there; at the same time it is a gross piece of injustice to see these people overflowed annually, and at the same time they are taxed for protection (?) from overflow. They must be patient and long-suffering to quietly submit to a system that really makes an overflow a matter of certainty, although the upper part of the parish of Lafourche and the whole of the parish of Assumption is in no danger. We write this in no spirit of fault-finding, but we believe that it is time for something to be done that will avert the danger to this section of the Lafourche valley. The present system alone is a pronounced failure, so far as the lower part of Lafourche is concerned—theoretically it is beautiful, practically they are as surely overflowed as they ever were. The scouring process seems to be limited to the levees that are surely secured with each new crevasse. The dredging is done at the wrong end and crevasses follow, and will continue to do so when we have a stage of water that is not considered dangerous at Vicksburg, Donaldsonville or New Orleans. The basin fills up and the levees there break. But of this,

MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Thus far May has been extremely propitious for the growing crop (although a little more moisture in the soil would have proved advantageous). The weather has been the warmest of the season, particularly at night, and the fogs and heavy dews have invigorated the cane and corn in the absence of rain. Some clamor for rain and others again are content to have such an opportunity to hasten the cultivation of their fields and free them of all extraneous vegetation in the early stages of growth when the work can be performed rapidly and at small cost.

Although the temperature of April was over 4 deg. below the normal and the rainfall scant, yet the crop prospect thus far is above the average with ratoons, with many sound eyes yet to germinate. In fact, in many fields the stand of stubble is now better than the plant cane at this time last year. Bar a long spell of wet weather, accompanied by supersaturation, and there will be an abundance of ratoons to insure a splendid crop. Every effort in the fields should be made to counteract the injurious effects of rains.

Ten years ago the crop was curtailed by a wet cultivating season in some parts of the State, and 1874 was disastrous from the effects of rains from the first week in May until the storm in October. The crops, both cane and corn, want to be cultivated to prepare the land for extensive root development and ramification. An examination of the stubbles discloses the fact that they are suckering rapidly, and new roots are appearing at the base of the young canes. To have the earth in a friable condition to receive the young roots is essential to stalk elongation early in the season, on which so much depends in harvesting a heavy tonnage. The fields of cane and corn generally have a good color, and the latter, where early planted, with the land in good order

will ere long be large enough to receive the laying-by working.

About all of the latest planted canes have been scraped, and some are yet fertilizing, the plant cane areas and stubble, also corn in some instances. Middles are being ploughed out and the cultivators are now passing over the fields to destroy vegetation and pulverize the soil. In a few days a seasonable rain, followed by warm, fair weather for ten days, would prove of marked advantage; yet the absence of rain will prove infinitely better than too much, as crops checked by the want of moisture have a wonderful recuperative power. The injury from an excess is almost always lasting.

The crops recently seen by the writer on Concord, of Col. Wm. Minor; Belle Farm, of Mr. C. W. Bocage; Roseland, of Mr. J. D. Minor; Argyle and Crescent plantation, of Messrs. Bonvillain Bros., and Southdown, the estate of the late Mr. H. C. Minor, are promising, although here and there indifferent fields can be seen, but such is the case every year.

The dredgeboat W. L. Shaffer was to commence work anew on Monday. The private dredge on Southdown has reached the main canal, and the Bayou Tiger is to be dredged for some distance below.

The official record for April from Schriever, gives a total precipitation of 2.32 inches, maximum of temperature, 87 deg. on the 30th, and minimum of 37 deg. on the 8th.

	Temperature.	Rainfall
April 25.....	85 55	.01
" 26.....	80 52	.....
" 27.....	83 44	.....
" 28.....	81 48	.....
" 29.....	81 52	.....
" 30.....	87 56	.....

Wednesday of last week, bright and cool; Thursday, fair with south wind, also Friday and Saturday; Sunday, cloudy and warm; Monday, clouds and sunshine, with warm south wind; Tuesday and Wednesday, fogs, with bright sunshine later.

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been very dry, hot and windy for the past week. The general crop condition is much improved over last week. Cane is growing rapidly and though the stand is not perfect, yet it is believed that it will be shortly. Corn is looking very well considering the backset that it received from the cool weather. Cotton is coming up in some sections and is looking healthy. Rice planting is progressing satisfactorily and will in a short while be finished. The present prospects on the whole are all that could be asked for at this season of the year. It is true the chinch bug has been and is now committing its deadly ravages on the corn, but through the kindness of Col. Joel Moody, editor of the *Republican Idea* of this place, the chinch bug infection has been introduced here from Kansas and a thorough trial will be given and its merits tested. The colonel sent

a number of the bugs to the Kansas University and had them infected and returned to him and he gave the infected insects to the farmers with instructions how to use them to the desired end or to obtain the desired results. Following is a partial outline of instructions given out by the University of Kansas for the successful infection of the bugs both in a box prepared for that purpose and in the field where the bugs are operating: "Make a box of $\frac{1}{4}$ inch material (matched white pine is best), and about 24x36x8 inches. Make the cover tight fitting, so that the bugs can not readily escape. Weather strips tacked about the upper edges of the box, so that the cover presses tightly against them when closed, will be found of service in keeping the bugs in. A heavy chalk line drawn all around on the inside the box will also prevent the bugs from crawling out. Place the boxes so as to exclude them from the sun and wind—a basement room is a good location. Sprinkle the boxes thoroughly with water inside and out. Place an even layer of garden soil in the boxes, half an inch deep. The soil should be free from leaves or anything liable to decay. Sprinkle the soil until it is moistened through, but not muddy. Put a thin layer of green wheat or corn over the soil in the boxes and distribute over this, at regular intervals, five or six of the white fungus-covered bugs. Now put into the boxes healthy bugs from the field until they are somewhat crowded, but not packed over one another. Lastly, fasten and close down the cover. Examine the boxes daily, and sprinkle the sides and soil as often as they appear to be getting dry. Do not, however, make the soil muddy. As soon as the white fungus-covered bugs begin to increase in your boxes you may commence to gather them for the infection of your field, but not before. You should be able to do this in the course of a week. Always leave a few fungus-covered bugs in your boxes for continued infection. Replace the wheat or corn as often as it becomes yellow and keep the boxes replenished with healthy bugs.

When the bug is infected by the minute parasitic plant which enters the body of the bug and kills it by feeding upon it, they are then ready to be scattered among the bugs in the field. They should be scattered where the bugs are thickest, in the axils of the leaves and at the base of the stalks. This destroyer has been used very successfully in Kansas and a thorough trial will be given it in this parish by a number of the leading farmers. The infection can be had of Chancellor F. H. Snow, of the Kansas University, Lawrence, Kas.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: The low temperature which prevailed on the 27th and 28th ultimo was sorely felt by the cotton planters.

The cool nights and the mornings, with the wind from the north during the day, has had a tendency to parch the young cotton plants in many places, interfering very considerably with the stand by leaving gaps in the rows, which will have to be replanted to get a per-

fect stand and a full crop of cotton to the acre planted.

The corn crops of this and the adjoining parishes, from what can be learned at the present writing, are making a fine growth. In a few instances noted it is learned that some of the earliest planting of corn has been laid by, and pease planted preparatory to planting cane next season.

I noticed, while passing through the Powhontas plantation last week, on the train, a field of fine oats waving to the breeze, and now beginning to head. There must have been some thirty or forty acres to oats in the field, something not often witnessed here in the Southland.

Regardless of the changeable season, cane has made a very remarkable growth.

The real beauty about the plant cane is the even and perfect stand now visible above the earth. So far no reports have been received, from any one planting cane in this and neighboring parishes of bad stands, nor of gaps in the cane rows, which may be classed as a rarity not met every year.

Stubble cane is now beginning to show up in a manner to delight all who may in any way be interested in the production of the juicy cane.

In regard to the improvement of the country, while it can not be said in the strict sense of the word to be on the boom, there is however a never-ceasing current of improvement going on in building and field work. Among some of the notable enterprises now to the fore is the construction of a line of railroad from Marksville to Alexandria, a distance of twenty-eight miles, traversing a section of country rich in its timbers and soil and fitted by nature for the profitable production of sugar cane. THE PLANTER'S scribe was informed to-day that Messrs. P. Butler & Smith, of Cheneyville, had purchased the Lunenburg plantation, situated near Loyd, Rapides parish. Lunenburg is composed of a fine body of cane land, watered by Bayou Boeuf, and has on it an open kettle factory, and the place having direct connection through a system of tramway tracks to the Meeker sugar factory. The Lunenburg open kettle mill has not been run for some years. The present proprietors, Messrs. Butler & Smith, are both of them up-to-date planters, who know how to grow not only a big tonnage of cane per acre, but just how to get the greatest amount of sugar into each and every ton of cane grown.

Mr. Chas. O'Quinn informed me on the 30th ult. that he and his brother, W. L. O'Quinn, of Berwick P. O., had recently acquired by purchase the King plantation, bordering on the west bank of Bayou Boeuf, and just inside the parish of St. Landry. If there is such a thing as luck the O'Quinn Bros. might be congratulated on the lucky score they made when purchasing the King plantation, for, in its soils for the production of cane, corn and cotton, it is considered the equal of any place in the country. Being near the Augusta Sugar Company, Limited, the Messrs. O'Quinn will make it a point to work their newly acquired fields into cane as rapidly as possible, com-

mencing with next season. This year the place is planted to corn and cotton.

May came in warm and blustery, and I see some of the prominent weather prophets have it that this, the month of May, will be a dry month, but we will all know more about that when the last day has past.

Late reports from Cottonport and vicinity say that present prospects indicate a rich harvest of cane, corn and cotton. The indications are now for rain during the week. ERIN.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: The spring weather which has been prevailing for some time is, as ever, beautiful. The luxuriant vegetation now in full bloom is exceedingly fine. The many trees and shrubs which the dreary fall left destitute and bare have again regained their verdant aspect and are once more thickly clad with a coat of leaves which affords us such a pleasant shade. The crops are growing with marked rapidity, and with the help of a very beneficial shower which we had a little over a week ago, they have been making good progress, but almost all the good that was to be derived from that last rain has been felt, and now we require another like it to continue its effects and thus temporarily satisfy the cultivator, who is always in need of something.

Still the present stand of the crop is somewhat backward for the season. Owing to a number of cool days and nights vegetation has been somewhat checked and its course retarded. This chilly weather has been very injurious to the rice crop, so much so as to oblige many of the early planters to again sow a second crop, as very little if any of their first seed proved good. Messrs. Callery Bros., of Convent, La., who have rented the Elma plantation on the right bank since January for rice cultivation, have recently made arrangements for securing the adjoining St. Alice plantation of Mr. Beltram, which is also to be used for the same cultivation. Mr. L. E. Callery seems to be well encouraged with the rice prospects, although he has had to sow over one hundred arpents which had not sprouted.

From what we can judge Mr. N. P. Himel's Wilton plantation has one of the finest crops up to date. He has a few acres that are easily seen in the distance and the stand seems very good, as the growth is very thick, and if what we see is a fair sample of his average crop, Mr. Himel will be fully rewarded for his earnest efforts and his sugar house will be well tested by the grinding of cane.

The Colomb Park tract of land, which was not cultivated last year, has this year been leased to some petty cultivators of Whitehall settlement. A large part of it has been planted in corn and the rest in cane. This soil is very good and the sprouting of both crops seems to have been effected by magic power. The slowly rising river seems to have now reached its highest point and has already found the way back, sliding silently down from our levees and uncovering our large banks. Although no danger what-

ever has been apprehended, still the seepage water has made its way all along the levees, and in some places the wave-wash is very bad, necessitating attention at the slightest rise of the waters. Since the declaration of war government levee inspectors have been placed all along our embankments at every fifteen-mile section.

The extensive repairs of the Uncle Sam factory are rapidly advancing. We have heard that double effects would be put up this year. Mr. Jacob has purchased the slate roofing outfit and other articles of the Belmont factory, and expects to have his sugar house as well fitted as possible, sparing neither time nor money in building up what he expects to be the pride of his plantation. CONVENT.

Trade Notes.

The Louisiana Distillery Company, Limited.—This concern, ably officered by well-known business men, is now in the market for that white elephant on the hand of the sugar planter—low grade centrifugal molasses. The problem of what to do with this by-product of sugar manufacture has vexed those engaged in the business for a long time, and many have been the solutions proposed without any adequate relief being obtained. It has been in many instances thrown away, as our readers know to their cost, and a purchaser ready to take it in any quantity and at a reasonable price is certainly deserving of a hearty welcome. The Louisiana Distillery Company, Limited, office 813 Tchoupitoulas street, New Orleans, is not only in the market for this molasses, but it is in the market all the time. It will furnish tank cars for handling the molasses expeditiously and economically, running them right on the sugar-house switches and conducting the whole business in a quick and business-like manner.

Mr. S. F. Heaslip is president of the company, Mr. C. Crawley, treasurer, and Mr. John C. Parker, vice president and general manager.

The Living Age.—The sketches by Paul Bourget, which have attracted attention as presented in translation in *The Living Age*, will be followed by one or two delightful groups of sketches by that other master of style, Pierre Loti. These are specially interesting just now because they relate to Spanish life and character.

In its issue for May 28 *The Living Age* will begin the publication of the most striking English serial of the year, "John Splendid," by Neil Munro, now in course of publication in Blackwood's Magazine. *The Living Age* has bought the right to print this story from the owners of the American copyright, and will continue its publication in weekly instalments until it is completed.

(Advertisement.)

To Sugar Manufacturers.

To grow a crop of cane is one thing, and to manufacture the cane after it has reached maturity is another. The first problem we do not care to discuss, simply because we know nothing about it, but the successful operation of the dif-

ferent lines of machinery used in the manufacture of sugar we know something about, and the kind of belting which should be used to keep these machines in operation without stoppage, we know all about. It makes no difference if the sugar house is equipped with the best and most costly machinery made in the world, and coupled together with poor belting, the money and the superiority of the machinery will be a failure. If you have the finest Corliss engine made and it is belted with poor belting it will be of no more account than the cheapest thing you could buy. Now, to have everything match and be able to run night and day without unnecessary stoppage, buy your belting either leather or rubber of the Charles Munson Belting Company, and you will get something that will stand the most severe tests. See our advertisement in *THE LOUISIANA PLANTER*, and we will live up to every assertion made therein, viz.: Our belting both leather and rubber will last you 25 per cent. longer than any other manufactured in the United States, and if not so proven after use we will make the same to you free of charge.

CHARLES MUNSON BELTING COMPANY.

Correction.

In *THE PLANTER* of April 23 and April 30 appeared an advertisement of the Oaklawn Sugar Company, in which they advertised for sale, among other things, a two-roller mill. By one of those strange freaks of the type which sometimes occur in spite of the greatest care, this mill was advertised as being 44 inches in diameter and 7 inches long. It should have read 7 feet long, as the intelligent reader has doubtless already perceived. The advertisement appears this week in proper shape and we strongly counsel all those who contemplate making a purchase of second-hand sugar house apparatus to take the matter up with the Oaklawn Sugar Company, of Irish Bend P. O., Bayou Teche.

Mr. and Mrs. H. G. Bush, of Terrebonne parish, were at the St. Charles Hotel during the past week. Mr. Bush is the manager of the Terrebonne Sugar Refining Company, near Montegut, and is steadily increasing the effectiveness of the immense plant which consumes a vast amount of Terrebonne parish sugar cane.

Col. L. S. Clarke, of Lagonda, was in the city on a visit a few days ago, as is customary with him about once a week, and put up at Colonel Blakely's hospitable house on St. Charles street.

Mr. Ed McCollam, a fine sugar planter and highly cultivated gentleman, was a guest at the St. Charles on Monday.

Mr. Wilbur J. Thompson, of Calumet, was a recent visitor to the city, and registered at the St. Charles.

Mr. C. W. Bocage, of Houma, was a Monday guest at the Royal, his usual stopping place.

Mr. M. M. Neames was the engineer at the Armant place, belonging to the Miles Company, during the past season, and is said to be continually increasing the mechanical efficiency and economy of this fine plant.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, April 16, 1898.

Editor Louisiana Planter: The week opened with the finest weather imaginable, dry and sunny, and it seemed that spring really had set in, but soon the falsity of this opinion was demonstrated by a sudden change which spoiled the Easter holidays. To all appearances the temperature had risen too rapidly, and this caused an outbreak of thunder storms in many places, the consequence of which was another period of moist and cool weather, the latter ending only a short time before the close of the week. Under these circumstances only a small amount of field work could be done, copious rains interfering seriously with all efforts made in that direction, and as besides the temperature sank at times below freezing point. The vegetation in general was prevented from making up for the time lost so far. But in spite of the unfavorable weather some progress is noticeable, and this will soon be more accentuated when the dry and also warmer weather we are having now keeps on for some time to come. A little better than in Germany the weather has been bad last week in Austria, France and Holland, whilst in Belgium and Russia it is reported to have been rather worse. Then in the first named three countries beet sowing is further advanced than in this country. In the latter, however, it is decidedly backward on account of the inclement meteorological conditions prevailing there. With regard to the importance of beet culture for 1897-98, it must be noted that the increase in Russia will not be as large as has been supposed generally. First of all the twenty new factories to be built there are dwindling down to five, at least it is now stated that only five new ones will be in running order at the commencement of the next campaign, and it is on that ground calculated the augmentation of the Russian area devoted to beet growing 1898 will amount to about 5 to 10 per cent. On the other hand, a considerable extension of the beet sugar industry of Russia may be looked for, as the earnings of the factories there have been excellent in the last campaign. On the following I give some figures with respect to the profits obtained by Russian factories which, no doubt, will make the mouths of your esteemed readers adhering to the sugar producing fraternity water. There has been paid a dividend of 25 per cent. by the factory Grigorow, 25 per cent. by Gorodock, 30 per cent. by Skomoroshch, 27 per cent. by Sokolow, 25 per cent. by Horjukow, and there are only two factories in Russia paying less than 5 per cent., and this in the face of the miserable condition of the markets of the world.

From Austria it is reported that energetic measures shall be taken in order to restrict the traffic in saccharine. The import of the stuff shall be prohibited and the addition of it to any victuals, solid or liquid, will be placed under penalty. Exception shall be made only for medical or dietetic purposes. The Austrian

minister of finance pointed out the other day in the lower house of the parliament that if the use of the saccharine amounts to about 410 kilogrammes, the treasury loses in sugar taxes about 2,600,000 florins, and he announced that this must be put a stop to. Unfortunately the Austrian government is going to take also measures injurious to the sugar industry. The sugar taxes will be raised from 13 florins to 19 florins per 100 kilogr., an innovation which is not apt to contribute to the increase of sugar consumption, which under present circumstances is so very necessary. Another change of the existing sugar law consists in our introducing a new mode of repaying the sums drawn by the manufacturers in excess of the legally fixed amount of the bounty, which is at present 9,000,000 florins. Hitherto the exceeding sums were paid according to the production of each factory, but henceforth it shall be lawful that the smaller factories shall pay less than the larger ones, which provision is in sympathy with the latest law of Germany, where the so-called working taxes increase in proportion to the actual outturn of each factory. This is meant to be protection to the weak, but I am afraid that the interest of the treasury also plays a great part in this kind of legislation, as the burdens of the smaller producers are not lightened, whilst those of the larger are made heavier, so that the seeming humanity of the law involves a more or less important advantage to the government. Such at least has been the case in Germany, whose legislation in this respect, as pointed out already, curtails the bounty, which, however, in America is levied in on full as a countervailing duty.

A general topic in sugar producing and commercial circles is the effect which the war now imminent between the United States and Spain may have on the sugar trade of the world. The general opinion is that if the war really breaks out (and it is perhaps broken out already when these lines reach you) there will first of all be an entire exclusion of Spanish colonial sugar from the American markets, so that you would get rid of Cuba, Porto Rico and the Philippine Islands as competitors. On the other hand it is deemed probable that America must for fresh supplies of sugar call on the European markets, so that the prospects of beet sugar do not seem to be altogether unfavorable, although at the beginning of the warlike movements some disturbances may occur and interfere with the regular trade between America and the neutral countries. That the consumption of sugar in the United States would suffer in a sensible way I do not fear. A great many people will make money in the case of war and the standard of life will certainly not be lowered. Your treasury will be drained, but the people in general will certainly be well off. As to the final result, however, I do not think that it, namely, the conquest of Cuba, will be a desirable end from the standpoint of the American sugar grower.

Last week a quiet market has been the rule in almost all commercial centres. Partly it was due to the interruption of the holidays, not overcome yet, which kept the business

within very narrow limits, partly on account of a revival of a brisk trade having been prevented by the uncertainty of the political situation, and at the close a slight improvement of the weather made buyers reticent. In Germany only the refiners made some purchases, whilst exporters kept aloof. But the former paid last and temporarily even a little higher prices, but closing quotations are unchanged for 88 per cent. rendement, 9.95 to 10.15 marks at Magdeburg and 9.03 marks for delivery April at Hamburg. Refined moderately active, with unchanged prices.

ROBERT HENNIG.

Barbados.

The Easter season has been crowned with pleasing weather. Hardly have we had a shower of rain during the past two weeks, and when we had it, it was so diminutive a quantity as to defy record. A brilliant sunshine, luckily tempered by winds obtainable at this trading season of the year, has been our canopy all along, and but for the frequent variance of the wind at any hour of the day, one would desire this throughout the season. For some days at the beginning of the period under review the heat was oppressive, and a darkened cast prevailed threatening rain, but it did not fall. Such weather is said to be advantageous to reaping operations, but the canes are young still, and where they are not, and the old windmill is in evidence, very little can be done with the wind blowing every alternate hour from each and every point of the compass.

The crop is proceeding, but with little benefit to reapers, who have almost lost hope. It does seem as if some evil Nemesis is prosecuting the plantocracy of these islands with a resolve to annihilate them before his course is ended. The faithful Bourbon has been played out, or at least so the majority of the planters think; other varieties are grown without experiencing attacks from the borer, and they gladden the heart of the sower that he has a fine crop in store for reaping.

Reaping day comes around bright and cheery, and all looks so promising; the bill has been merrily applied and amid the scorching trash there lie specimens of the sugar cane that fills the heart of the possessor with pride. The glad laborer carts them gaily to the mill and they pass through the crushing formalities; the juice flows down in quantities and the boiler hopes for a continuance of such a flow. But after two or more courses the yield is deceptive; the liquor is not what it used to be, its saccharine quantities are deficient; canes stout and juicy, but devoid of those herculean attributes known to planters of the old school and only maintained during the lengthy period that all other cane but the Bourbon was unknown. He is thus a loser in quantity. So far as the sugar is concerned we hear of very unsatisfactory results, and it would be foolish to expect otherwise when the circumstances are considered. And the prices of the product. These have been going during the fortnight at a zig-zag rate—to-day up, to-morrow down. As we said earlier our planters are now almost hopeless; they have exhausted every recourse to supplementary aid and are now, like the condemned man on the scaffold, in momentary expectancy of the crash that will lodge him into eternity, or the welcome reprieve that would free him now and forever. In our last issue we published the full contents of the doing of our friends on our behalf on the other side. We can only hope they will continue to so befriend us till at last we shall taste of the cup of deliverance.—*Globe, April 14.*

Notes on the Sugar Industry of Trinidad, B. W. I.

By FRANK E. COOMBS.

AGRICULTURAL.

But a small part of this branch can be personally observed by a stranger who is in the island during the growing season only. That the soil is exceptionally rich and suited to cane

carts can pass over them without very much trouble.

Planting is usually done in hill, rather than drill—that is to say, men with sharpened iron bars strike holes into the prepared soil where the stools are to spring and mark the spots by sticking in cane trash or other handy material, so that the women and children following with the short cane cuttings can see at once

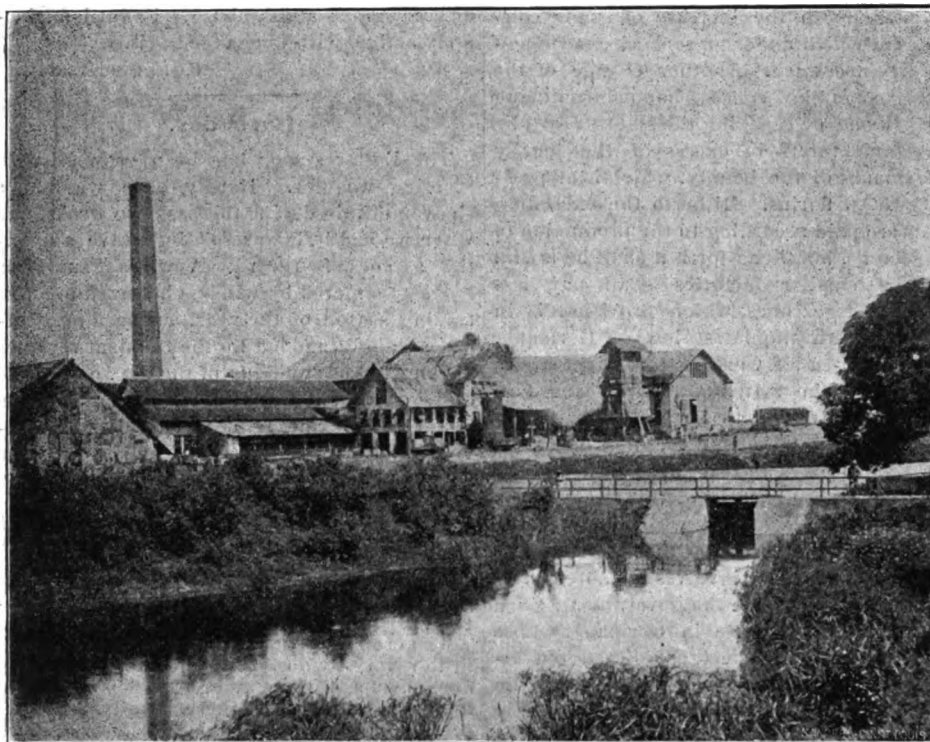
where these pieces are to be stuck into the ground. According to the moisture in the soil, and the chance of rainy or dry weather, the short lengths of seed cane are set in the ground more or less deeply by driving the iron rod vertically or at varying inclinations. As a rule, very little seed cane is lost by over and under covering. Fertilizer is worked in by the hoe.

For planting, the cane tops are generally used, cut at what corresponds in Bourbon cane to the first red joint of Louisiana. As indicated above, Bourbon, a greenish yellow, medium, thick cane, is the favorite.

On account of the risk of fire in the dry winter season and with the prevailing strong northeast trade winds, trash is not burned on the ground. Very little green trash is wasted, being too valuable as cattle fodder, and the dry fallen trash is all that is left to rot, and to assist in keeping down weeds until the ratoons have sprung. Just before cutting, the dry trash is removed by hand and piled at intervals among the canes, leaving comparatively bare ground for throwing the cut canes upon and hauling off, as also for planting. From the practice of leaving unburnt trash in the field arises the usual evil of insect damage, but while serious, the work of the various borers is not nearly as disastrous as it is in the older cane districts of Cuba.

Cane does not often "arrow" in Trinidad, as special effort is always made to cut the entire crop each year and to leave no "stand-overs," although a bad (wet) season occasionally forces a small acreage to be left uncut.

Hauling is done, as in Cuba, principally by ox teams, though railways are also quite generally in use, with cattle or locomotive for drawing the trains. Loading is done awkwardly in contrast with the artistic cording



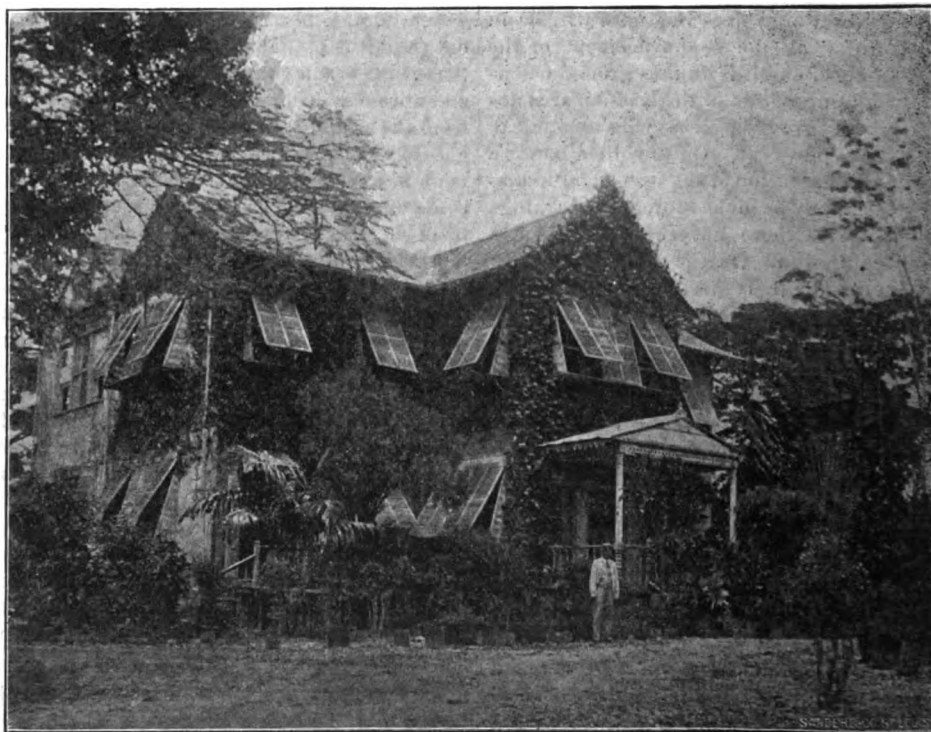
ESPERANZA SUGAR FACTORY.

culture is apparent from the tonnage per acre, which averages, plant and ratoon, from thirty to thirty-five (and exceptionally forty) English tons, cut for the mill per acre, a figure far in advance of any Cuban average. I have known these high yields are in great part aided by the fact that intelligent cultivators are employed as managers, who do not allow the lazy Cuban practice of long years of ratooning and who do, generally, understand the judicious use of fertilizers, which are applied in quantities of from 250 to 400 pounds per acre.

The land is rolling, inclining to hilly in many sections, and the red soil considerably gullied by the heavy rains of summer, which does not admit usually of the long straight cane rows so familiar to the Louisiana sugar man. The plow follows the hillside contour to prevent washing.

Main ditches are constructed to carry off the rainfall, and the cane square is cut up into small squares of about twenty feet on the side by smaller ditches, which themselves are often three or four feet deep. On level lands, of course, these cross ditches are of slighter depth, but as a rule they are deep enough so that cultivation of the growing crops, as well as planting are done by hand with hoes.

In the cutting season, trash is piled into the ditches at intervals until the two-wheeled ox



PLANTER'S DWELLING HOUSE.

practised in Cuba. As placed on the cart the ends of the canes (cut full length) hang out over each side, bound by a few canes laid down the middle. But little over a ton (2240 pounds) is taken as a load on the two-wheeled cart and drawn by two oxen in ordinary weather—four if the roads are slippery with rain.

LABOR.

The imported Asiatic—East Indian coolie—is the mainstay, both in field and factory. While not of as powerful build as the negro, he is a better man where activity and perseverance are called for, and in the field is especially valuable from his ability to work all day in the continued rains of the wet season without suffering from it. The Asiatic has also superior thrift, as a class, and is more inclined to deny himself present enjoyment for the sake of future security. Rightly handled he is a most valuable working man.

Practically all coarse hand labor is performed by coolies, who also are employed inside the factory, at the clarifiers, filters, centrifugals and molasses tanks. Coolie women as well as the men and older children also work in the field and the factory. As a handicraftsman—carpenter, blacksmith, engineer, machinist and even vacuum pan boiler, as well as book-keeper, weighman, railroad driver, etc., the negro finds place at and about the factory, and in the field is often assistant overseer.

I say, "as engineer," by this meaning that, while each factory has its white chief engineer, he is really a superintendent of the general machinery plant, the actual running and repairs to which are done by the black subordinates, and usually quite well done.

As a pan boiler, in charge of the general clarification and treatment of all products, the negro is not a success. He can make the grade

of "yellow" or "Demerara" crystal called for by the manager, but this is done simply by murderous excess of tin salt, muriatic and phosphoric acids, and waste of material by overheating in the pan, drawing water into the charge before dropping and so forth.

On the cane yard, the coolie laborer, if rightly managed, is very efficient, more than making up for shortcomings in muscular strength by untiring activity. The coolie labor

is divisible into "free" and "indentured;" the former hiring to whom he can for whatever wage he can get, and the latter, bound by agreement or indenture, to work at a specified estate for a term of years at government regulated wage and rations, and given housing, medical attendance and hospital privilege as prescribed by law. All estates employing indentured labor are regularly inspected by subordinates of the local



A COOLIE DWELLING.



TYPES OF COOLIE LABOR IN TRINIDAD.

"protector of immigrants," whose function it is to decide all grievances complained of by the indentured coolies against their employers and *vice versa*, as well as to see that all such estates keep up a certain sanitary standard in rations and housing, as well as in hospital supplies, etc. The medical attendance is given by government physicians, whose salaries are in part paid by the estates' owners through an immigration tax. At the end of five years the coolie becomes free of indenture and may choose his own employer in case he wishes to remain. After ten years he may choose between a free passage back to his Indian home and an allotment of crown (public) land in the colony, many availing themselves of the latter alternative.

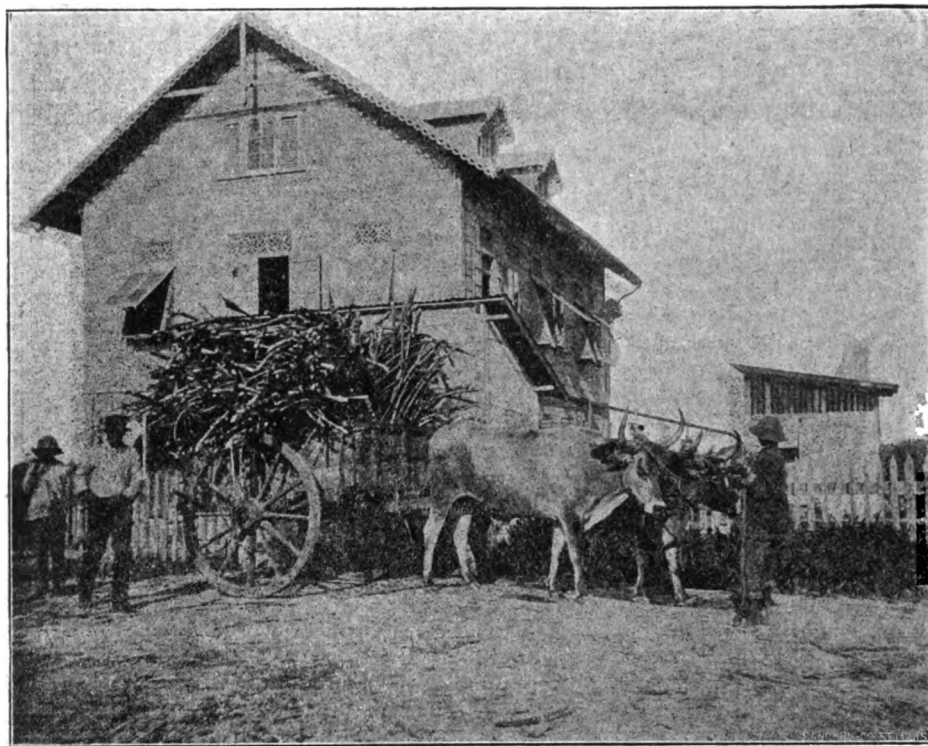
Wages are low. A coolie, indentured or free, earns from thirty to fifty cents per day cash, if free; rations, etc., deducted if indentured. The food of the coolie is principally rice, and his house a palm hut with mud walls. His living expenses are thus very light indeed, and, in fact, it was stated by a prominent employer in Trinidad last winter (1896-97) that he can live comfortably upon *six cents a day*!—a statement as probable as it is picturesque. Work is paid for upon the "task" system—so much per acre or fraction for field work, and ditching by the running foot, with allowance

for material removed. The overseers "take up" this work, dock pay when carelessly done, or require a second going over without pay if too bad to pass.

The indentured men are not abused, as the penalty for second proved offence in this direction is non-eligibility of the estate for securing immigrants, a fact which in some cases is taken advantage of by a few vicious coolies, who become expert malingers, evading duty

ally are from twelve to thirty miles apart by road.

Over each group of scattered estates the attorney (local representative of the owner, or sometimes of the interested bankers) holds chief authority in the matter of minor expenditures, passes upon the quality of sugar made, orders the manner and time of its shipment and usually has authority to remove any of the estate managers.



LOAD OF CANE AT SCALES.

by every expedient, although as a rule these people work faithfully, considering their pay.

OWNERSHIP AND MANAGING OF ESTATES.

Most sugar estates in Trinidad—it is safe to say all important ones—are owned nominally by corporations and individuals in England and Scotland. In too many cases the estates, through mortgage, are really controlled by Scotch and English banks. How well the need of a profitable sugar business would be appreciated and met by a banking concern five thousand miles distant needs little comment, and in regard to the non-resident private owners not as yet fatally involved in debt, it may be stated that they are rarely sugar men, and many of them have never seen the tropics or growing sugar cane. However efficient their representatives at the estates may be, their expenditure must always be subject to approval of the owners, and too often these latter must in turn abide by the decision of the bank from which the funds are to be obtained.

In the island the estates of one owner are not usually single large plantations. More often there will be from two to four or five separate estates, each with its own mill and boiling house and staff of managers and subordinates, and these estates may be and usu-

ally are from twelve to thirty miles apart by road. Next in authority to the attorney is probably the chief engineer, who is generally stationed at or near the largest of the factories of the group. His immediate subordinates are the local resident engineers of each factory, and the chief engineer is expected to visit the different places and to see that all machinery, railways, etc., are kept in order, as well as to pass upon suggestions for improvements, which, if they see fit, are submitted to the attorney for approval if trivial, and to the "home" people as well, if involving large expense.

Upon about the same footing as the chief engineer are the resident managers of the estates. These are expected to be rather cultivators than factory men, although they are in actual charge of grinding operations and regulate all the routine of the boiling house. They must also personally audit all accounts of the estates and make up weekly reports to the owners and to the attorneys.

An assistant manager and subordinate overseers hold the same place and do the same work as in Louisiana.

Associated with the manager, and on very nearly equal footing, is the resident engineer of the estate. His duties are those rather of a superintendent than anything else, and naturally are confined to the factory and rail-

way equipment if the latter (as usually is the case) exists. Black men, however, do practically all the running of engines and the like, and the engineer is not directly busied with the mill engine. As a rule, the entire working of all engines, pumps, evaporating plant, etc., as well as overseeing of boilers and furnaces, is done by negroes. The black man who, with two or more assistants of his own color, officiates at the vacuum pan is often in the curious position of being enough a subordinate to get a large share of "cussing," and at the same time enough a superintendent to be in personal charge of all the juice treatment from mill to sugar bins and molasses tanks. He is pan boiler, clarifier boss, triple effect overseer, head centrifugal man and all; not in all factories, to be sure, but in very many, and quite often he will be the only man on the estate who is supposed to know how to lime cane juice.

FURNACES AND BOILERS.

Furnaces of modern type for burning green bagasse are not usual, if they exist. Natural draft is depended upon for burning the dry bamboos (cultivated purposely for fuel), wood, coal and green or partly dried bagasse. The bamboos, hollow and of very dense woody fibre, are peculiarly well adapted to kindle and keep the green bagasse from packing on the grate.

Almost universal use is made of so-called "patent fuel," which consists of coal slack and a trace of gas tar as a binder, pressed into very compact blocks, about eight inches by six on the edges. This material, imported from Great Britain, costs about the same as coal and is fully as valuable, having also some advantages in respect of easy handling and piling.

Bagasse is commonly fed green, but is put into the furnace by hand from above, being pushed down through a narrow slit in the brick-work over the grate. Much time is lost by this method of feeding and the coolies who put in the bagasse need constant watching.

Where vacuum evaporation is practised little other fuel than bagasse needs to be used, but in houses where the juice is boiled in open trains the bagasse alone is not equal to the demands upon the boilers.

Boilers are of efficient multitubular design and pretty good setting. As a rule they are of the fire tube type.

MILL WORK.

Crushing is usually single, and when two 3-roll mills are used, they have generally each a separate cane carrier and feeding gang. Double crushing is sometimes practised with maceration, but is not nearly as effectively done as it should be. The distance between the two mills is often very great, and maceration water is thrown on nearer the second than the first mill—fear of acetic fermentation (!) is the reason for this delay of adding the water. The long distance between the two mills is caused by their being placed abreast, so that single crushing could at any time be done with either or both mills.

One who is used to the shallow grooving or

almost smooth rolls of a Louisiana front mill, will at once notice the deep, irregular hacking given to the front rollers in a Trinidad mill. It is claimed that the very hard canes of the island can not enter an ordinarily grooved mill.

Crushers for the cane (which is fed long) are rarely used; and during the crop of 1897 several places were just beginning trial of a primitive device, essentially composed of a number of cutlass blades, set spirally along a revolving axis obliquely across the carrier near the mill. The stroke of the blades cuts the canes into short lengths and beats down the crooked stalks into a mass which the mill will take more easily than the unprepared stalks as first thrown on. That a device of such slight efficiency as this should meet with enthusiastic welcome is sufficient comment upon former milling.

In spite of the drawbacks, 65 to 70 average mill extraction, with single crushing is common, and considering the really woody nature of much of the season's cane, it is very fair work. At the same time, with the rich juice of such cane, a thorough maceration would be of great profit.

Great care is taken regarding cleanliness about the mill, and in spite of stoppage every night, and an average uniform temperature of 96 deg. F. in the shade, fermentation odor about the mill room is very rare indeed.

CLARIFICATION.

Sulphuring is done just after the juice leaves the mill, by ordinary sulphur stoves (with a steam-forced draught) and cascade box.

Juice is partially limed before heating, and just before going into the battery of settling tanks a second liming is given, and phosphoric acid according to the indiscretion of the sugar

boiler. It is noteworthy that liming is generally short of neutrality, and that large quantities of phosphoric acid (quite impure) are then added.

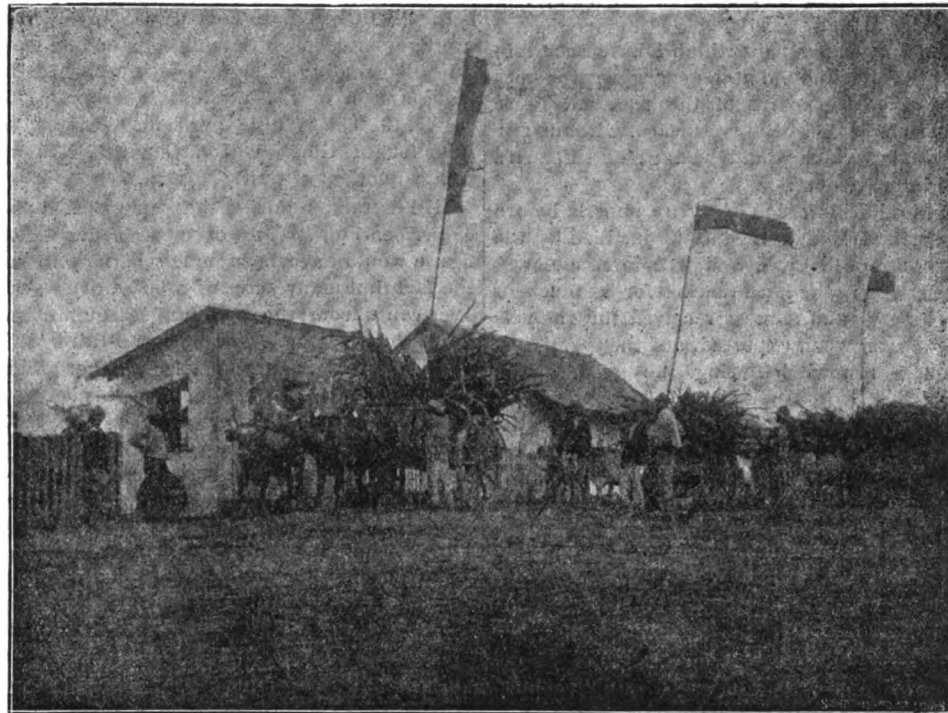
Clear juice was drawn off from the top by a float-pipe, which follows the liquor as it runs down. Settlings are worked by subsidence and decanting—the heavier mud going to the filter presses when such are employed.

Reheating and brushing are often practised.

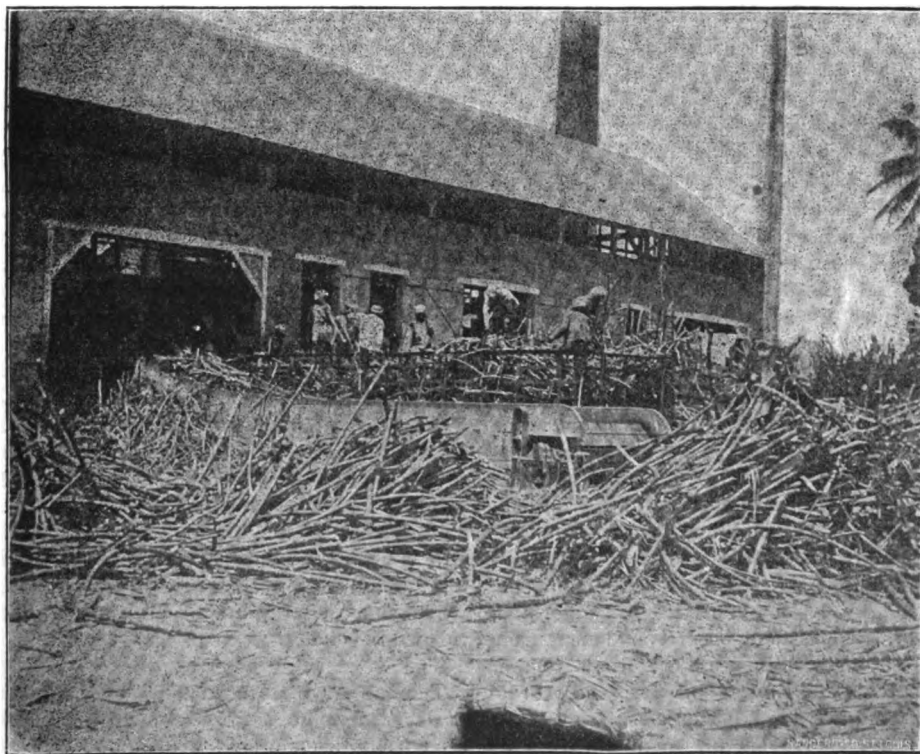
Owing to the habit of stopping the factory every day from 7 or 8 P. M. until morning, fermentation very commonly sets in and damages the acid clarified juice and syrup that are left over night, for these simply can not be boiled off clean always. One of the chief losses of sugar occurs at this point.

EVAPORATORS AND VACUUM PANS.

While open train evaporation is yet common,



LAST LOADS OF CANE.



SHORT THIRTY FEET CANE CARRIER OPEN TO WEATHER.

triple effect evaporators are quite extensively used. These are of the standard vertical type and are almost always of very ample capacity.

"Wet" vacuum is the rule. The condensing water is cooled, excepting in rare cases when a supply of fresh water is available by circulation through a series of shallow ponds, connected by gates opening at the bottom, so that only the coolest water at the bottom of the ponds passes from each toward the condenser.

Sweet waters are oftenest returned to the boilers, or otherwise go to the general stock in the ponds from which the boilers draw their feed.

Regarding the places where open preparation of juice is practised, the usual trouble at the vacuum pan occurs from the necessity of taking into the pan semi-syrup of from 14 deg. to 16 deg. B., retarding the work and wasting fuel.

VACUUM PAN WORK.

Vacuum pans are universal wherever any pretence is made to produce sugar for export, and they are always arranged for plenty of live steam. In fact, the exhaust steam is rather an auxiliary than a dependence. The practice of connecting the pans, if more than one, is also followed, and possesses its obvious advantage in doing away with necessity for many cuts when large crystal is desired, and

saving heat as well as shortening the time required for successive strikes. The pans are connected almost directly with the wet vacuum pumps; that is to say, there is no catchall, and only a slight set of baffle plates at the top of the pan. The sugar boilers are inclined to fill the pan excessively, and there is no means of seeing what goes over when, as often happens, the top eyeglass is covered. At the close of the strike, especially when the pan is flooded with thin, hot syrups, this goes immediately to the top and adds to the chance of loss.

In two vacuum pans which I have seen into when empty, I note that the charging pipe goes straight to the centre of the pan, and there opens above the heating surface, without any downtake, which would be a great safeguard and improvement.

As to the admission of syrup shortly before the strike is let down, this is justified by the fact that a well-grained, light colored molasses sugar sells in the local market for as much or more per pound than is received for the yellow crystal when exported, and the syrup contributes toward bettering the grade of the seconds.

The color of the Demerara crystal, or yellow crystal sugar, is a deep golden yellow, with a faint tint of greenish. It is essentially the same sugar, in grain, as Louisiana yellow clarified. It is purged hot, but not washed, or very slightly so, in the centrifugal. As before stated, the coloring is done by excessive amounts of tin salt, strongly acid, added in the vacuum pan some little time before dropping the strike. When shipped immediately this sugar reaches London in fair condition, without much change of color, and goes into consumption without refining. Often, when shipment is delayed, it turns brownish and becomes sticky before reaching port. This sugar is packed in the ordinary coarse sugar sack, which, of course, tells against its keeping qualities, if much handled or long stored.

Molasses is generally boiled but once, and very rarely boiled back upon first goods. Second molasses usually goes to the distillery which is run in connection with every large estate. Second masse cuite is boiled very thin and run into broad shallow tanks on the floor of the factory. No hot room exists in the British West Indies. The sugar secured in these tanks forms a fairly coarse grain, but in yield it does not approach the quantity which ought to be secured, and could be had with better crystallizing apparatus.

Regarding both first and second sugars, it may be said that the vacuum pan temperature is carried quite too high. Molasses sugars especially are apt to be burned, although the low proofs and acid bleach prevent excessive discoloration from this cause. The molasses which goes to the distillery ranges from 40 to 50 per cent. purity.

Hand labor is one of the worst foes of economy in the Trinidad sugar factory. All sugars, all second masse cuite, all second molasses (tops from the cooling tanks) are carried to packing room to centrifugals and to storage tanks, respectively, in trays and buckets on the heads of women coolies. Men stand in the

coolers with spades and dippers from the time the tops are renewed until the last masse cuite is shoveled out, and every ounce of it goes away on heads. Every pound of fuel, wood, coal and bagasse is fed to the furnaces by hand, carried to and from the baskets.

MISCELLANEOUS NOTES.

As in Cuba, experience in Trinidad tends to explode the common opinion that cane grown in the tropics yields juice in which the glucose percentage is very small, and notably less than is the case with Louisiana cane juice. The average per cent. on raw juice, extending over a whole grinding of eighty days, was 1.7, this being a ratio to the per cent. sucrose of 11.1 per cent. The average per cent. solids of the juice for this time was 18.7; sucrose, 15.3 per cent.; quotient of purity, 81.8.

Mill extraction during the same period was 65 per cent. on weight of clean cane, which figure would have been much better only for the fact that many acres of woody, dry stand-over canes from the previous season brought down the average. One and one-third ($1\frac{1}{3}$) pounds of total sugars were secured per gallon of raw juice on two boilings, but this is better than the average, since, in the crop of 1897, 96 deg. sugar was made for refiners at New York and molasses was boiled back upon it—which is never done when yellow crystals are to be made.

The lime is slaked and mixed with water to from 16 to 18 deg. Baumé before it is added to the juice, and is used in the proportion of about $3\frac{1}{4}$ gallons to the 1000 gallons of juice; often as little as 2 gallons to the 1000. Sulphur burned is about $1\frac{1}{2}$ pounds per 1000 gallons of juice. Tin salts are used to the extent of from 1 pound to $1\frac{1}{4}$ pounds per ton (2240 pounds) of yellow crystal (first) sugar.

Talmage on the Rice Market.

High tide has probably been reached in the rice market, at least so far as the volume of business is concerned, the movement of the week being the largest of the year. In addition to the jobbing demand there has been an interchange of stock, by the various dealers by which broken assortments were filled up, and as a consequence prices unified. Everything of desirable character finds ready sale to arrive, and liberal contracts have been entered into for delivery during all of the coming month. These last, however, are "subject to abrogation, if rice be declared contraband of war." As would naturally follow under unusually active conditions, the market continues strong with further upward tendency, especially as current quotations are relatively 10 to 20 cents per hundred less than those prevailing abroad. Advice from the South note steady movement at all points, principally local, and that preparations are being made to supplement the limited supply of domestic by imports of foreign. Cables and correspondence from abroad note a continuation of former temper and trend. The Easter holidays, which ordinarily tend to retard business, scarcely interrupted the course of the boom, and the re-opening of markets found a crowd of eager buyers, with but few, and these reluctant, sell-

ers. Large orders are unexecuted from day to day, and the promptness with which all offerings are absorbed is generally accepted as a practical evidence that "the end is not yet," and a much higher plane of values likely to be established in the near future.

Talmage, New Orleans, telegraphs Louisiana crop movement to date: Receipts, rough, inclusive of amount carried over, 525,500 sacks; last year, 568,350 sacks; sales, cleaned (estimated), 115,370 barrels; last year, 104,515 barrels; demand enlarged; prices advanced $\frac{1}{8}$ to $\frac{1}{4}$ ordinary to fair grades.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 59,350 barrels; sales, 58,720 barrels; steady demand at previous quotations; foreign selling to limited extent.

Trade Notes.

Lubrication of Gas Engine Cylinders.—

The proper lubrication for gas engine cylinders has been a very difficult problem. The problem, however, seems to have been very successfully solved by an official of the Pennsylvania Railroad Company. He writes as follows: "I had a gas engine at Sharon, Pa., running a pump, and the man who had charge of it allowed the lubricator to run dry and cut the piston, piston rings and cylinder. The makers of the gas engine said the cylinder would have to be sent to the shop and bored out and a new piston put in. It was our busy season and we could not do without water. I had some of Dixon's finely pulverized graphite, and I commenced to feed it into the cylinder through the suction pipe with the air and gas with immediate relief. After about two weeks the engine was running smoother and using less gas than ever before. I had this same engine apart last Saturday, and every place that was cut is smooth as glass. This one instance saved us about \$75. I have great faith in this graphite and always keep it on hand."

Link-Belt Machinery Company—This well-known concern has found the business of its New Orleans branch increasing so rapidly that new and larger quarters became an imperative necessity, and they have therefore moved into the well appointed and commodious building No. 710 Union street, where they occupy the entire structure and carry in stock a greatly increased equipment of link belt and sprocket wheels, shafting, pulleys, boxes, collars, friction clutches, rope sheaves, takeups, elevator boots, buckets, bolts, rope, etc.

Mr. W. G. Wilmot, the manager of the local branch of this great concern expresses himself as greatly pleased with the business outlook, and we feel confident that a large share of this success is due to Mr. Wilmot himself, who is one of the most courteous, painstaking and withal best posted machinery men with whom our sugar planters have ever been thrown in contact.

Thomas A. Badeaux, Esq., of Lafourche parish, where he is a prominent and highly esteemed citizen, was in the city on a visit a few days ago and put up at one of the leading hostleries.

BEET SUGAR.

Lehi, Utah.

The Lehi farmers are ahead of any others in the preparation of their lands for the different crops, especially so in regard to the beet lands.

Superintendent Austin is much pleased with the outlook for a good beet crop. Those first planted are now up and look fine. There is some danger of the heavy land baking a little, and the ground will have to be stirred to break the crust so the tender plants can come through. If necessary this will be done with cultivators or tilling harrows going lengthwise of the rows. This will not be necessary in many places. Some patches will be ready to thin in about ten days. As soon as the planting is finished, Mr. Austin expects to leave for La Grande, Or., where he will spend about two weeks among the beet farmers. Superintendent Granger has sent for him.

The new board of directors of the Utah Sugar Company met on the 20th, the entire board being present. The following officers were elected for the ensuing year: George Q. Cannon, president; Thomas R. Cutler, vice president and manager; Horace G. Whitney, secretary and treasurer. A committee, consisting of Directors Grant, Cutler and Ferguson, with the secretary associated, was appointed to draft appropriate resolutions on the death of the former president of the company, the Hon. Elias Morris, and to forward a copy of the resolutions to his family.—*Banner, April 26.*

Facts About Fertilizers in Sugar Beet Cultivation.

We consider it very necessary to refer constantly to fertilizers in sugar beet cultivation, for there will be a time when they will play a most important role in many States that are now devoting their attention to beets. A fact to be always borne in mind is, that sugar beets vary in size and quality with the nature and composition of soil on which they are planted.

As early as 1855 Deherian determined to follow very closely the action of plant foods upon sugar beets, so for the past twenty-two years there are portions of land at the Grignon Experimental Farm that have been under constant cultivation, but have received no additional fertilizer. Under these conditions potatoes and oats have continued to thrive; with wheat a difference is noticed, but the crop still continues satisfactory; beets appeared above ground, but could not continue their development and after a few days nearly all the young plantlets disappeared. By an addition of phosphates to the exhausted soils it was possible to obtain a small crop of beets. As these phosphates may be purchased at comparatively low prices there is no reason why farmers in certain cases should not give them a trial, the quantities to be used being determined by an experimental test. When the amelioration of conditions is no longer noticeable the limit has been reached and no further addition can be profitable.

In those cases where farmers used, say, eight

tons of barnyard manure the autumn before planting, the soil is thus supplied with 105 pounds of phosphoric acid, which is sufficient to meet the requirements of scientific beet cultivation. It must not be forgotten that the barnyard manure should be ploughed under to a depth, when possible, of twelve inches. The lumps of earth become frozen and before spring are pulverized by the action of thawing of ice, owing to the expansion and increase of volume of the natural moisture or that absorbed after rain. No agricultural implement has ever been constructed that can accomplish this work of disintegration so effectually. Lands that have to undergo an entire preparation just before sowing are never in the condition so favorable for the beet development as when fall ploughed. There is an important word of warning regarding the use of barnyard manure, even under the conditions we have just mentioned. We only need recall the experiences in France in 1880, for there was then considerable alarm among the manufacturers; from year to year the saccharine quality of the roots was diminishing.

Some agronomists declared that the soil was becoming exhausted of its potassa, which alkali is taken up by the beet during its growing; then potassic craze followed, but numerous experiments showed beyond cavil that the deterioration in the quality of beets was not due to the absence of potassa in the soil, but to the excess of those nitric elements furnished by the barnyard manure, giving satisfactory crops to the farmer but of an inferior quality for sugar extraction, the sugar percentage of beets being always inversely proportional to their nitric percentage. From 1884 a new law was passed, and the manufacturers, being anxious to secure beets of superior quality, offered a sliding scale of prices depending upon sugar percentage. A written agreement was required that barnyard manure, or any other nitric fertilizer, should not be used; difficulties, however, frequently arose between interested parties; farmers were accused of having used the nitric plant-foods with the view to increasing their yields. Some years later it was demonstrated that certain fertile soils when undergoing fermentation produce nitrates without any being added by the tiller.—*The Sugar Beet.*

Sugar Notes.

SUGAR FROM POTATOES—Even as beet sugar has to a great extent replaced cane sugar, and turned the industry upside down in the process, so, it appears, may potato sugar eclipse beet sugar and again upset the tide. A Dutch correspondent writes to the *Westminster Gazette* that Dr. Geerlings, director of the proof station in Kagok-tegal (Java), formerly of the University of Amsterdam, and many years assistant in the chemical laboratory of that university, has discovered a simple method of converting the starch of potatoes into sugar. He has sent in a sealed envelope, as is customary, the descriptions of his method to the French Academie des Sciences; this to secure the priority of his invention, as his discovery is not yet quite at the stage of being made pub-

lic. Dr. Prinzen Geerlings has so much official business upon his hands that some months may elapse before he can prepare the discovery for publication. Starch-producing plants are much less liable to climatic influences than sugar-producing vegetables, and with regard to the sugar industry the only question is to find the means for converting on a big scale and at small cost, so that the method may take the place of the manufacture of sugar from cane or beet. If this can be done there is one of the biggest economical revolutions in sight.

Dr. C. P. Carver, of St. Augustine, Fla., is experimenting with the sugar producing properties of watermelons. He has so far found that he can extract a fine taffy candy sugar at the proportion of one ounce to eight ounces of the melon pulp without the rind. Dr. Carver is going to ascertain the proportion of saccharine matter in the whole watermelon, for he believes, from experiments he has made, that a large quantity can be extracted from the rind, as well as from the pulp or heart of the melon. He says he is positive a sugar of superior delicacy can be made from the melon.—*New York Shipping List.*

Since writing the former paragraph recently on this subject we have come across the paragraph referred to in Crosine's "Natural Wealth of California." It is as follows: There is at the eastern base of the Alps (Sierra Nevada?) much land subject to being destroyed by deep washing of sand, on which nothing will grow except melons, only two being allowed to mature on a single vine. As the melons are gathered they are slashed open with a big knife, and a wooden scoop empties the pulp into a vessel where the juice is expressed like maple sugar in the Atlantic States. The sugar sells at remunerative prices, is light colored and sweet. Red pulp melons give a dark sugar; white pulp is therefore preferred. We have in this State a great area of land similarly destroyed every year. The sugar melon example is commended to poor men, who can get the free use of the space and proceed on small capital.—*Florida Farmer.*

Mr. Thomas A. Badeaux, of Thibodaux, La., was in the city on a visit a few days ago.

Colonel Richard McCall, of McManor plantation, and Mrs. McCall, were in the city last Wednesday and registered at the Cosmopolitan Hotel.

Mr. C. A. Buford, a popular sugar planter of Terrebonne parish, came up to the city on Monday and registered at the Commercial.

Mr. Michael Werner, the "old reliable," was in charge of the vacuum pan at the Rich Bend plantation during the past grinding season. Mr. Werner sticks to Rich Bend and Rich Bend sticks to him. John Lear, Esq., another solid man, was the engineer at Rich Bend, and ran things to the queen's taste as usual.

Mr. Ferdinand Polrrier and Anthony Bringer, Esq., had charge of the boiling department of the Minnie plantation during the past campaign. They are both good boilers, and the latter was at one time at Hermitage plantation, and served for the past three years at the late J. H. Meeker's Home place.

MAY 7.

WEEKLY MARKET REPORT.

1898.

SUGAR.	April 30.	May 2.	May 3.	May 4.	May 5.	May 6.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
Open Kettle.								
Choice	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	
Strict Prime	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	2 7/8 @ 2 1/2	
Prime	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	2 3/4 @ 2 1/2	
Fully Fair	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	2 1/4 @ 2 1/2	
Good Fair	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	2 1/4 @ 2 1/2	
Fair	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	2 1/4 @ 2 1/2	Strong.
Good Common	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	2 1/4 @ 2 1/2	
Common	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	3 7/8 @ 3 1/2	2 1/4 @ 2 1/2	
Inferior	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 1/4 @ 2 1/2	
Centrifugal.								
Plant'n Granulated	4 1/2 @ —	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ —	— @ —	— @ —	
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice White	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ —	— @ —	3 7/8 @ 3 1/2	
Off White	— @ —	— @ 4 1/2	— @ 4 1/2	— @ 4 1/2	— @ —	— @ —	— @ —	Quiet.
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow	— @ —	4 1/2 @ 4 1/2	— @ —	— @ —	— @ —	4 1/2 @ —	3 1/2 @ —	
Prime Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Good Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Seconds	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 3 1/2	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ —	
Choice	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ 9	
Strict Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 9	
Good Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 8	
Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 7	
Good Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 6	
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	Dull.
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
Inferior	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —		— @ —	— @ —	— @ —	
Centrifugals, 90	— @ —	— @ —	— @ —		— @ —	— @ —	— @ —	
Granulated	5.15 @ —	5.15 @ —	5.15 @ —		5.15 @ —	5.15 @ —	4.22 @ —	Quiet.
Standard A	5.08 @ —	5.08 @ —	5.08 @ —		5.08 @ —	5.08 @ —	4.10 @ —	
Cuba, 90, Ctf.	— @ —	— @ —	— @ —		— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —		— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —		— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —		— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	11s. 7 1/2 d.	11s. 9 d.	11s. 9 d.		11s. 9 d.	12s. 0 d.	10s. 6 d.	Firmer.
A. & G. Beet	9s. 6 d.	9s. 8 1/2 d.	9s. 8 1/2 d.		9s. 8 d.	9s. 8 d.	8s. 10 1/2 d.	Steady.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Standard Granula'd	— @ 5 1/2	— @ 5.58	— @ 5.58	— @ 5.58	— @ 5.58	— @ 5.58	— @ 4 1/2	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Steady.
Rosetta Ex. C	— @ 5 1/2	— @ 5.41	— @ 5.41	— @ 5.41	— @ 5.41	— @ 5.41	— @ 4 1/2	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Apr. 27	Tons	345,317
At four ports of Great Britain to	Apr. 28	"	77,500
At Havana and Matanzas to	Apr. 27	"	86,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAY 6, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	153	15,247
Sold	153	16,518

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO MAY 6, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	22,481	1,410,913
Sold	22,481	1,394,337
Received same time last year	84,693	1,328,558

MAY 7.

WEEKLY MARKET REPORT.

1898.

RICE.	April 30.	May 2.	May 3.	May 4.	May 5.	May 6.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, 50 bbl.	2 50 24 75	3 00 23 75	2 25 25 35	2 25 25 35	2 25 25 35	2 25 25 35	— @ —	Strong.
CLEAN, Fancy	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	5 1/2 @ 6	
Choice	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 5 1/2	
Prime	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	4 1/2 @ 5	
Good	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	4 1/2 @ 4 1/2	
Fair	5 @ 5 1/2	5 @ 5 1/2	5 @ 5 1/2	5 @ 5 1/2	5 @ 5 1/2	5 @ 5 1/2	4 @ 4 1/2	Strong.
Ordinary	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Common	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —	
Inferior	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Nominal.	
No. 2.	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	
BRAN, 50 ton	11 00 11 50 12 00	— @ —	12 00	12 00	12 00	12 00	12 00	
POLISH, 50 ton	— @ —	16 00	16 00	16 00	16 00	16 00	17 00 18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAY 6, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received	3,767	277
Sold	3,177	1,496

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO MAY
6, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year	464,594	7,844
Last year	875,751	9,197

Sugar.

A sufficient demand to absorb all offerings prevailed in the local sugar market at the end of the week. Open kettle sugar was strong and centrifugals quiet.

Molasses.

No open kettle goods in first hands. Centrifugals dull.

Rice.

Clean rice was firm and rough strong at the end of the week. Arrivals from the country were light, and such as came in were promptly absorbed at full prices.

Sugar in London.

The imminent war between the United States and Spain raises a number of questions to which the past three generations have been strangers, though they were only too familiar to our grandfathers in the thirty years that preceded the battle of Waterloo. We have had several great European land wars since that period, but this is the first time that a naval war on a fairly large scale seems likely to take place. In the old Napoleonic period, England generally had the mastery of the seas, so that, apart from the occasional loss of some of our West Indian islands, our sugar consumers were probably not habitual sufferers, though prices were always what would nowadays be considered exorbitant if not prohibitive.

The United States and Spain have not signed the declaration of Paris, so that by international law the right still exists between them of searching neutral vessels, and of capturing the property of belligerents, apparently whether such property is contraband of war or not. The United States, however, has announced that it waives this right, and also that it does not intend to issue letters of marque to

privateers. Our government confidently expect that Spain will adopt the same course, as being consonant with modern civilization. The United States will probably, therefore, not have to fear interruptions in their large beet sugar supplies from Europe, while they are on the Atlantic, and the difficulty of coaling is likely to prevent a blockade of any exclusive section of their Eastern coast. Even with a blockade the coast line is so immense in itself that it would be impracticable to blockade the whole, and then the Canadian ports would, in any case, be open. It appears likely, therefore, that the shipments of beet sugar from Europe to America will pursue their usual course, and that a somewhat larger supply will be wanted if, as is thought likely, the first step of the United States be to blockade the chief ports in Cuba and Porto Rico. The stocks of sugar in the Spanish West Indies are not large, so that the question is of little importance, but so far as this goes the war seems likely to strengthen the market for the time, especially as prices are exceedingly low, while stocks are much less than they were and the beet sowings on the continent this spring are believed to be on the whole less than last year's. It is quite possible, therefore, that we may for a time see somewhat dearer sugar, particularly as there is generally some sympathetic movement in the market when commodities like wheat are affected, as is at present the case.

The general anticipation is that the end of the war will be the emancipation of Cuba, and the bestowal upon that magnificent island of a civilized and settled government. This consummation, however devoutly to be hoped for on the broad grounds of humanity, would, in all probability, greatly depress sugar, if in a couple of years' time we were to have further supplies of 1,000,000 or more tons of cane sugar from Cuba, as in fact we have nearly had a few years back. Such considerations, however, deal with too distant and uncertain a future to affect an article which fluctuates from small causes from day to day and week to week. As to the immediate prospects, the stoppage of sugar supplies from Cuba appears, as stated above, to be likely to a small degree to stimulate the American demand for beet from

Europe, and prices being low, to strengthen the European market. Of course if the war unhappily proves a long one, the greatly reduced crop of Cuba (which has fallen to 300,000 tons) might for the time being, be wiped out, and if so, the effect would be more important.

The certainty of war has had the effect of moving this market from the monotonous course it has pursued of late. The decline which recently occurred in the American markets has also been followed by a speedy advance in price, and now that the supplies from Cuba are, for the time, at an end, American sugar stocks will be tightly held. The probability also that sugar cultivation in Cuba, small as it now is, may be further interrupted so far as the next crop is concerned, may also tend to strengthen the position of cane sugar. Beet sugar has been decidedly more active, both for actual sugar and speculatively, and here again the prospects of the next crop may be affected in some small degree by the advance in the price of wheat, if it should cause some reduction in the sowings of beet. As of late, cane sugars have been quiet of sale as regards low refining kinds, which continue very scarce and relatively very dear, but grocery crystallized kinds have met with a much better inquiry and prices are fully maintained. The demand for this sugar has, it is noteworthy of mention, much improved since the assortment in the market has more largely consisted of yellow, and consequently more salable, sugar. The imports of crystallized raws to London for the week ending 21st inst. amounted to 247 tons, and for this year to 9549 tons, against 13,590 tons in 1897.—*P. M. Review, April 23.*

Personal.

Gov. H. C. Warmoth, of Magnolia plantation, registered at the St. Charles on Thursday.

Mr. C. L. DeGravelle was head sugar boiler at the magnificent Shadyside plantation, of Mr. J. W. Barnett, on Bayou Teche, during the past campaign. Mr. DeGravelle stands very high indeed in his profession, and has taken off some of the largest and finest crops in the State.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—POSITION AS WREIGHER OR SIMILAR for coming season, by experienced man of 35; first-class recommendation; well posted on general office work; also open for any kind of employment at once. Address E., care L. Schuster, merchant, Hohen Solms P. O., Ascension parish, La. 5-3-98

WANTED—A POSITION BY A FIRST-CLASS sugar-house and refinery engineer to do repairs and take off crop; has fifteen years' experience. Address D. W. B., No. 720 Valmont street, New Orleans, La. 5-3-98

WANTED—BY A FIRST-CLASS MACHINIST and engineer, fifteen years' experience in refineries and sugar houses; can give first-class reference. Address HENRY WESTON, 740 Poydras street, New Orleans, La. 4-26-98

WANTED—BY A FIRST-CLASS OPEN KETTLE, open pan and vacuum pan sugar maker, a position for this coming grinding season; best of references can be given. Apply to FELIX SERPASSE, St. Bernard P. O., La. 4-27-98

WANTED—POSITION ON A PLANTATION AS assistant manager, time or book-keeper; could take charge of a stable; I am a married man, 30 years old; have good references as to habits and capability; all letters will receive prompt attention. Address WILLIAM DEETRICH, Hammond, La. 4-23-98

WANTED—A POSITION WITH A LARGE firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address SUGAR MAKER, care this office 4-16-98

WANTED—A POSITION AS CLERK OR ASSISTANT overseer, on sugar plantation; can give best of references as to ability and character. Address 500, care PLANTER.

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommends the best in the State. Address J. FRANZ, Eureka, St. Louis county, Mo. 4-6-98

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. R. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS in the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98.

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98.

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98.

WANTED—A CARPENTER, WITH LARGE EX perience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EX perience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Paincourtville, La. 3-18-98.

WANTED—A POSITION AS CHIEF ENGI neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES PO sition at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—A STEADY, INDUSTRIOUS MAN of family, a sugar boiler, wishes to procure permanent employment on a sugar plantation, where he can do the boiling during the grinding and make himself useful at general repair work the remainder of the year; can furnish good references. Address F. N. S., 931 Piety street, New Orleans, La. 2-23-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address H. G. Hill, Ponchartroula, La. 3-2-98.

WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assistant boiler in some large factory. Best of references given. W. B., Box 62, Donaldsonville, La. 3-31-98.

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98

WANTED—A SUGAR HOUSE AND REFINERY chief engineer would like to make arrangements for the coming season; the larger the house the better it will suit; he best of references. Address EXPERT, this office. 2-5-98

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2439 Chartres street. 2-5-98

WANTED—A POSITION AS SUGAR DRIER; can furnish good references. Address WM. BERGER, 1815 St. Antoine street. 2-5-98

WANTED—A POSITION AS FILTER PRESS man; has had many years' experience; can furnish references. Address WALTER DAILY, 2620 Dauphine street. 2-3-98

WANTED—A POSITION AS ASSISTANT EN gineer; can furnish good references; six years' experience. Address G. HENNINGSEN, 518 Louisa street. 2-3-98

WANTED—A POSITION AS SUGAR MAKER for 1898, by a boiler of experience; best of references. Address JOS. J. LANDRY, Convent, La. 2-3-98

WANTED—A GOVERNESS FOR A FAMILY in the country; middle-aged lady preferred. Address J. S. COLLINS, Giesmar, La. 1-28-98

WANTED—A POSITION BY A COMPETENT salesman and thorough accountant; strictly sober; best of city references. Apply Box M, Gibson City, La. 1-24-98

S. F. H. ASLIP, Pres.

C. CRAWLEY, Treas.

JNO. C. PARKER, Vice Pres. and Gen'l Mgr.

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NEW ORLEANS.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

NEW ORLEANS, LA., MAY 14, 1898.

No. 20.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

OFFICIAL ORGAN OF THE

*Louisiana Sugar Planters' Association,
Ascension Branch Sugar Planters' Association,
Louisiana Sugar Chemists' Association,
Reneas Sugar Growers' Association,
Texas Sugar Planters' Association.*

Published at New Orleans, La., every Saturday Morning

BY THE

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ical, Political and Commercial.

EDITORIAL CORPS:

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John Dymond, President.

The Louisiana Sugar Planters' Association.

The May meeting of this association was held on Thursday evening, at 339 Carondelet street, New Orleans. President Rost was in the chair, Secretary Dykers at the desk, and there was a very good attendance, among those present being Messrs. George E. Mann, W. B. Schmidt, G. G. Zenor, H. S. Crozier, W. C. Stubbs, P. S. Morris, C. R. Churchill, J. S. Webster and H. G. Morgan, Jr. The minutes of the previous meeting were read by the secretary and approved. President Rost then announced that Messrs. Frank Davies, Ernest Ivy, J. C. Febiger, Jr., and John J. Brown were candidates for membership, and they were all unanimously elected. The secretary then read letters from Hon. W. L. Strong, president, and Mr. Wilbur F. Wakeman, secretary, of the American Protective Tariff League, notifying the association of its enrolment as a member of the League, and expressing pleasure and gratification at the action taken by the association. A letter in the same strain from Mr. Henry C. Valentine, member of the executive committee of the League, was also read. On motion of Col. G. G. Zenor the treasurer was authorized and instructed to remit to Secretary Wakeman the dues for 1898, amounting to \$100.

Chairman Henry McCall, of the committee appointed at the last meeting to draft suitable resolutions expressive of the sorrow of the association over the death of its second vice president, Hon. H. C. Minor, being unavoidably absent, the resolutions which he had drawn up were presented to the meeting by Secretary Dykers. They were as follows:

Whereas, death has again been amongst us and we shall no more see the face nor hear the wise counsels of the Hon. H. C. Minor, late valued member of this association, yet his memory and good deeds will live to inspire and strengthen our efforts to sustain and build up this great sugar industry.

Mr. Minor's ancestors were pioneers in

opening up the Terrebonne country, and he himself lived to see Southdown one of the largest and best equipped of our modern plantations and factories.

His home, graced by a loving wife and children, a devoted and illustrious sister, was always open to friends and extended its charming hospitality to all travelers.

Mr. Minor was one of the original members of this association when it was organized in 1877. He was one of the founders of the Sugar Experiment Station and of THE LOUISIANA PLANTER.

As an officer of this association he took much interest in its welfare and was ever ready to lend a helping hand in our various struggles for existence at home and in Washington.

In his death this association has lost a member we shall mourn and can never replace. The State and his parish have lost a citizen of intelligence, courage and integrity.

Therefore be it resolved, That this association tenders to the Minor family our heartfelt sympathies, and that the secretary be and is hereby instructed to furnish them with an engrossed copy of these resolutions.

HENRY MCCALL,
JOHN DYMOND,
L. M. SONIAT, } Committee.

The resolutions were signed by Mr. McCall and Mr. Dymond, two members of the committee, the third member of the committee, Mr. L. M. Soniat, having had no opportunity to affix his signature. The secretary was instructed by the meeting to sign for Mr. Soniat, and did so, and the resolutions were then, on motion of Mr. W. B. Schmidt, adopted, and a copy ordered sent to the family of Mr. Minor.

Judge Rost followed up the adoption of the resolutions by a few remarks, referring in the highest terms to the estimable character of the deceased.

The regular topic of the evening, "The Comparative Advantages of Spring Planting and Fall Planting on Louisiana Sugar Plantations," was then taken up, and a very valuable and instructive paper thereon was read by Dr. Stubbs. The thanks of the association were extended to Dr. Stubbs, and the paper ordered published. It appears elsewhere in this issue. A general discussion was then had, which was participated in by Messrs. Zenor, Crozier, Mann, Schmidt, Morgan, Rost and others, of which a full stenographic report will appear next week.

The president then announced that Professor Blouin, of the Sugar Experiment Station, had kindly consented to prepare for the June meeting a paper treating of the "Use of Lime and Sulphur in Sugar House Work." Several of the members present spoke of the deep interest felt in this topic, and of its great importance to all sugar planters, and it was unanimously selected for discussion at the next meeting. There will doubtless be a large attendance, as Professor Blouin has made a thorough and exhaustive study of the subject and our planters will derive a great deal of valuable information through listening to the paper and taking part in the discussion which will ensue.

Dr. Stubbs then made a few remarks to the effect that owing to a number of adverse causes, among them the late meeting of the Legislature and the outbreak of war, the idea of making a State exhibit at the Omaha Exposition had been abandoned. Elsewhere in this issue we print a short editorial referring to this matter, to which the attention of our readers is directed. The meeting then adjourned.

The Louisiana Cane Crop.

The reports from the country this week all indicate that the growing crop is considerably in need of rain, the lack of moisture and the low temperature which still prevails at intervals having combined to retard the growth and development of the young canes. As we are now in the middle of May it can hardly be possible that warm weather and occasional showers should be postponed much longer, and they will doubtless arrive before a material injury is sustained, as cane possesses a wonderful power of recuperation in this respect. Too much rain would have been much more serious.

The Louisiana Exhibit at Omaha.

THE PLANTER has received from Major J. G. Lee, Commissioner of Agriculture and Immigration, a notice to the effect that the Louisiana State Board of Agriculture and Immigration, having in view the delay in the meeting of the Legislature, the nearness of the opening of the exposition of Omaha, the general war excitement now prevailing, together with the diversion to war matters of the attention of the many correspondents of

the board, has concluded to abandon the efforts to make a State exhibit at Omaha. The board extends its thanks to those who have aided in the work thus far, and announces that the handbook on Louisiana now in preparation will be published later on.

While every citizen of Louisiana will regret that we should abandon making a State exhibit at Omaha, thus showing our transmississippi children that their old mother State still maintains a keen interest in them, and that the lapse of a century should only serve to bring the whole family more closely together, still fate seems to be against us this time, and we must hope that the future will give us ample opportunity for a grand reunion of Louisiana and her children, the States of the mighty West.

German Country Life.

In this issue we reprint from a recent number of *Blackwood's Magazine* a very interesting article on *German Country Life*. To one familiar with plantation life in Louisiana the article will be very interesting, for, as our plantation life begins to disappear in the presence of the great central factories, with cane culture reduced to smaller holdings on a farm basis, the old-fashioned Louisiana plantation life will gradually disappear. As our German cousins seem to have some difficulty in making both ends meet so do we and so shall we, if we may fairly judge the future by the past. Any way, we commend the article to the study of our readers.

Ascension Branch Sugar Planters' Association.

As was noted by our Ascension correspondent in our last issue, the above well-known organization held its annual meeting in Donaldsonville May 3, making the occasion an exceptionally interesting one by the reunion of the members at the annual dinner which has been such a delightful feature of the annual meetings in the past. Hon. Henry McCall was re-elected president, together with the whole corps of officers which has served the association so well during the past and previous years. Hon. W. P. Miles and Gen. Joseph L. Brent, the ex-presidents of the association, were unavoidably absent, but were

kindly remembered in toasts and talk by the assembled members. The annual meeting and dinner were among the pleasantest affairs that ever occurred in Ascension.

Brown Rice.

In a recent issue of the *Demerara Argosy* there is a communication concerning *brown rice* which seems a novelty to us, although we thought we knew all about rice in Louisiana. Perhaps some of our readers may know something about it. We at first thought this rice was our own well-known red rice, but the writer in the *Argosy* indicates that the color comes from a steaming process. He says:

Your last number having given the public some information about the small rice huller at work in the colony, and observations being invited on Creole rice, I am prompted to offer a few remarks on the colonial rice industry, by which we should all lay great store.

In regard to the product to be milled it is perhaps unnecessary to remark that only the best grain (there are 102 varieties of grain, I believe) should be grown. It should be properly milled, and put on the market in such style and quality as would suit the different tastes of the two classes of consumers. These I roughly assess at 50,000 and 230,000, the latter number including the East Indian consumers.

The larger market being composed of the consumers of brown rice, or Ballam, the miller should cater accordingly, and not try the impossible task of converting the consumer's taste. Give the people brown rice, if even you have to employ scientific aid. As far as I know only one solitary individual (an East Indian) in the street has offered Creole brown rice. He paid \$4.50 per bag for it at a time when the imported article was being sold for \$5 and \$5.05; and I must say that no ordinary cook can tell the difference between it and the imported article. In this case the Creole product is of a larger grain. I am informed that this Creole brown rice was grown and steamed by the same man. The steaming which gave it the brown color it has must have been done, I surmise, in an ordinary pot. Afterward it was milled, or husked I should rather say, as I presume the man has no mill.

The consumption of brown or Ballam rice being so large, it should be our business to obtain the best steaming and drying apparatus to turn out large quantities of the required article at a minimum expense. This may not be within the reach of the small grower, but certainly within the reach of a number of people who consider rice milling worthy of attention.

Our rice industry should be encouraged by all means. Skilled advice and information of a useful and practical kind should be disseminated by a government agricultural department. We should know what are the best grains to grow, when to grow them, when to reap, when to stack and how long; and how to avoid "sun-cracks" which cause the grain to be broken in passing through the mill.

Where would we have been as a sugar growing colony if the best machinery and the best technical knowledge had not been obtained? The rice industry is in such a favorable position now that a little useful information disseminated would be of immense advantage.

Mr. O. Himel, of Assumption parish, was registered at the Cosmopolitan on Thursday.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: But for the "Planters' Dinner" last week and the "Planters' Ball" this week there would have been little material with which to construct Ascension's letters to THE PLANTER of the 7th and 14th insts. The usually fruitful subject of comment and speculation, the weather, has been monotonously dry, while the declining river fortunately furnishes no food for sensational surmise or apprehension.

There haven't been sixty good-sized drops of rain to the square yard during the past fortnight, and the complaint of drought among planters and managers is therefore not only general but emphatic in this section. Conditions of this character always excite our agriculturists to lamentations both loud and deep, and not a few are suffering from spells of despondency and lugubrious anticipation. Let us hope that early and frequent showers of rain will revive their drooping spirits by putting new life and promise into the growing cane.

When inferentially promising in last week's screed to give to-day a detailed account of the annual dinner of the Ascension Branch Sugar Planters' Association, your correspondent reckoned without his host by failing to take into his calculation the ball given under the same auspices, Wednesday night, of this week. Having been an interested guest at the latter entertainment for much the better part of last night, this scribe is in no frame of mind to-day to supply a sufficient relation of either the dinner or the ball.

Suffice it for the present to say that in every essential particular going to make up successful functions both were of a character to gratify every member of the branch association, and to fully realize the most sanguine expectations of hosts and guests. The ball opened shortly after 9 o'clock and lasted until 4 this morning. The rooms and galleries were beautifully decorated with bunting, moss, palmetto and Chinese lanterns, the brilliancy of electric arc lights lending a refulgence to the scene not attainable in Donaldsonville prior to the establishment of the town's new lighting and water-works plant which began operations a week ago. The throng that filled the building and mingled in the mazy figures of the dance to mellifluous music was *recherche* and attractive, and the admirable manner in which all the details were arranged and carried out reflects much credit upon the ball committee, composed of Messrs. F. B. Lemann, Paul Leche, W. I. Barton, C. Kline, G. A. Gondran, John T. Nolan, Jr., and W. W. Barron. Chairman Lemann and Mr. Barron were especially diligent and active, and to their exertions, ably seconded by those of Mr. Kline and a number of ladies, the completeness of the arrangements and smoothness of their execution were mainly due.

Unless something unforeseen prevents you shall hear next week something more of the dinner and ball from

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has not been favorable during the past week, being too dry and at times entirely too cold. The young cane seems to be suffering in places, and in a few others is dying out. Great efforts are making to save and start it up again. The ground is being constantly stirred and has been brought up close about the cane. Everybody is wishing for rain. The dust on the public highways is becoming very disagreeable.

From Mr. Henry D. Dardenne, of Bayou Plaquemine, we learn that his father, the late John A. Dardenne, one of the best planters who ever lived, often said that he never feared a dry season, and that in 1844 when no rain fell for 105 days he made a better crop both of cane and corn than in ordinary years.

The prettiest corn we have seen this year is on the Pecan plantation of Messrs. Barrow & LeBlanc. It was planted in the latter part of February and was laid by a few days since, and notwithstanding the dry weather it has a rich green color, and the pease planted in it are coming up to a full stand. Messrs. Barrow & LeBlanc have ditched from end to end the Osage plantation leased from Mrs. O. Labauve and adjoining Pecan, and are putting it in excellent shape. It would be a great benefit to this section if more of its lands could be put under the care of Mr. Ben C. LeBlanc, who in this as in other works is most thorough.

Mr. Charles E. Booksh, of Plaquemine, has sold his little plantation, three miles from Plaquemine, to the Edward J. Gay Planting and Manufacturing Company, Limited, who own the Little California plantation adjoining. Mr. Booksh and Capt. W. L. Erwin are the lessees of the Little California and will continue to work the Booksh place in connection with it. They are good planters, and their crop will materially help to swell St. Louis' tonnage.

Some of our planters are getting in their coal earlier than usual this year, as they fear that, should hostilities with Spain be prolonged, the demand from the United States government would be so great, especially on the lower Mississippi, that dealers would not be able to fill their contracts with planters.

A visit to the Grosse Tete section shows that since the Matthews-Webre sale increased confidence prevails there, and many inquiries were made about the possibility of the building of a central factory. The farmers there are in earnest and having the finest lands in the State could in a short while supply any quantity of cane needed.

Among the recent graduates in medicine at Tulane University was Dr. Elol M. Levert, a son of Mr. Amedee Levert, of Souloque, owner of Golden Ridge and Willow Glen plantations, and one of Iberville's most successful planters. Dr. Levert, we learn, will practice on the coast, between Plaquemine and Bayou Goula.

District Court, after an uneventful session, adjourned *sine die* last Saturday. At no time in the history of the parish has there been as little litigation pending as now. Is it a sign of prosperity? We hope so.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: From one end of the parish to the other there is a chorus of complaints about the dry weather now prevailing. We have had no rain here to amount to anything since Tuesday, April 19, and, as can be well imagined, the crops are beginning to suffer. In fact, the general conditions now existing are far from being favorable to the rapid growth of either cane, cotton or corn. Aside from the dry spell, the weather remains too cool—unseasonably cool. Between the drought and the low temperature the crops are at a standstill. Planters whose places are usually among the last to suffer during a drought are beginning to complain. Last Monday night a sprinkle fell, and the hope became general that we were on the verge of a good, substantial rain, but the performance was a "delusion and a snare." Next morning the weather, as usual, was distressingly clear. Of course it is impossible to say how long these unfavorable conditions will exist, but it is equally certain that until a rain falls and hot weather sets in, the crops will remain in a backward condition.

Mrs. C. S. Burns and daughter, Miss Theo, of Cinclare, left last week for Cincinnati, O., where they will remain two months visiting relatives and friends.

Poplar Grove is putting in the Stirling boilers, and will add two centrifugals to those now in use.

Last year the cotton planters here turned out something over 7000 bales of cotton. This is quite a good showing for

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The announcement in my last letter that winter was a thing of the past was, in view of the recent cool snap, decidedly premature. On Friday the wind blew up quite fresh and the weather was decidedly too cold for May. One planter reports having seen frost. As a result of the cool, dry weather, the cane is beginning to take on a yellowish tint, and in some localities a few of the plant canes are dying. Work is well advanced, and if the Creole saying that a cool spring means a large crop year, then '98 should be a record-breaker. The fields are free of grass, and the crop has been well worked. The corn is looking well, as is usually the case with a cool spring. Rain now is beginning to be badly needed, the light sprinkle of Tuesday barely moistening the leaves. The use of subsoil plows is greatly increasing, and the result of their use in dry spells is said to be remarkable. Many of our planters are waiting for rain before laying by their corn and putting the pease in, as they fear there may be just enough rain to sprout them and not enough moisture to keep them growing.

A short chat with Mr. Coulon, of Lafourche, who is obtaining the rights of way for the extension of the Southern Pacific to Napoleonville, or rather to Elm Hall, assures me that the chances for its early completion are ex-

ceedingly bright. He says that he has found but little opposition to the granting of the rights of way. This road will traverse one of the richest agricultural communities in Louisiana, and will open up a section of country that is unexcelled in natural resources. It is expected that the road will be in running order in time to take to market the growing crop. The grading is being pushed ahead with energy, and we trust soon that the toot of the locomotive will awaken from their lethargy the people of Assumption.

A recent visit to Ridgefield found Mr. Nicholls full of improvements. A ride over his crop was greatly enjoyed, and it is well worth a trip to Lafourche to see as uniform and promising a crop as can be here seen. The stubble struck me as unusually large, and its rich green color showed evidence of its thrift. Mr. Robert Hanson is the manager there the present year.

We hear that one of the best plant cane crops in Assumption is to be found on Made-wood. Not having seen it we can not personally vouch for this; but knowing the reputation of Mr. Camille Blanchard as a successful manager, we would be surprised if it were not true.

In the death of Dr. Jos. D. Ford on last Saturday, Assumption loses one of her successful planters. Since a number of years he has been more or less closely identified with the sugar interests of this parish. His funeral at Christ Church, Napoleonville, was one of the largest that we have ever witnessed at that church. His son, Mr. Wm. Ford, of New York, was with his father at the time of his death.

The steamboat war is now on, and the cutting of rates, as predicted, makes things interesting to the shippers. Competition seems to be the life of trade, and has resulted in cheaper and better service than we had before the Liberty came out. Now it is a very pretty three-cornered fight.

The new road system promises to be a complete success, unless the men employed by the parish let down in their good work. The roads are in excellent order, and they are being systematically and thoroughly worked.

We regret to state that the health of Mr. Florian Rodrigue is not good. We hope with the coming of warmer weather that he will regain his normal strength and activity.

Elm Hall is making arrangements to cross the cane from Locust Grove to that model factory. Mr. Godchaux contemplates putting in extensive improvements this year.

Woodlawn is drying out thirds at present, and Mr. Alcee, the sugar boiler, is very proud of the fine results obtained from the car sugars.

MORE ANON.

Vermillion.

[Special Correspondence.]

Editor Louisiana Planter: The weather is very dry and has been for the past two weeks. In fact, we are now in the midst of a very damaging drought. With this dry weather came at first heavy south winds that dried out the moisture, and for the past few days a stiff,

cool north wind has been blowing, which has almost wilted tender vegetation. There were some indications of rain on the 8th (Monday), but they passed off without giving us more than a slight sprinkle. The effects of the uncommonly cool weather on the growing crops will be discernible for some time to come, especially on cotton, which is most sensitive to such conditions.

The cane crop is the most favorably advanced, and in fact is looking splendidly throughout the entire sugar belt of the parish. A perfect stand is reported generally, and personal observation discloses the fact that notwithstanding the exceedingly backward spring and the smallness of the cane, the plant has a healthy, hardy appearance, and with proper seasons will yield a full crop. The corn crop is very backward; the first planting was killed out by the bud worm, and the present stand is being sucked to death by the pesty chinch-bug; the above, together with the backward spring, is not very favorable to a full corn crop. Cotton is up to a full stand but looking red and parched. Rice planting is about finished, save some parts of the parish where "providence" rice is raised. That part of the crop that was planted first is up and looking well. West Vermillion has been planted solidly to rice this year, and the Vermillion Development Company has charge of irrigating the most of it from their huge canals along the Bayou Queue de Tortue. Their large canal projecting out from the Primeaux landing on said bayou is nearing completion, and when completed and connected with the present one that has been in operation for the past two years will be the largest irrigating plant in the world, and will have an irrigating capacity of 40,000 acres of land. The pumping outfit for the new canal consists of four 36-inch and two 18-inch pumps with a capacity of 237,000 gallons of water per minute; this is the largest known pumping plant in operation to date. Mr. Kaplin, the manager of the company, expects to have that immense outfit in running order in a very short while.

A special term of the Criminal Court convened here this week. The regular term was to have been held during the month of April, but was postponed on account of the absence of the district attorney, who was attending the constitutional convention. The docket is not very large, but a number of very important cases will be tried, most of which are for wholesale cattle stealing. Several hundred head of cattle have, for the past year, been stolen in the parish, and it was thought for awhile that outside parties were committing the act, but it is now positively learned that home people are the guilty parties.

Gen. Dudley Avery, a prominent sugar planter of the Avery Island and owner of the salt mines on said island, was in Abbeville for a few hours on Tuesday, the 10th, having come over with General Superintendent W. F. Owen and Assistant General Manager Thornwell Fay of the Southern Pacific Railroad Company to meet with the railroad commission, W. P. Miller, of this parish, to assess the I. & V. Railroad. The assessment was recorded at \$3500 per mile.

P. C. M.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: The bright days with cool nights, and northwest winds with dry atmosphere, have retarded plant growth and rapidly deprived the soil of moisture, so that all crops, particularly plant cane and corn, would be benefited by a rain to effectively saturate the soil, yet without putting any water in the furrows or ditches. The unpleasant change in the weather has caused crops in many instances to lose color, yet the ratoons generally hold their own more so than others, due to action of the roots below the stubble, which penetrate to the moist stratum below. The public roads are now unpleasantly dusty, and on some places cisterns are dry and drinking water consequently scarce. On the majority of places field work is well advanced and but little extraneous vegetation can be seen.

Although the canes may appear somewhat small, yet to dirt them with dry earth is infinitely better than to throw too moist furrow to the cane to destroy the grass later. The dry soil will neither retard the suckering or rooting of the young canes. Now that the fields are dry, every mule and available implement should be used to stir the soil as often as circumstances will permit, not only to improve the physical condition of the land, but exterminate grass, etc., which may not be visible to the naked eye.

The major portion of the corn to be seen is not very thrifty in appearance, due to two causes—firstly, late planting, and, secondly, want of preparation from undue haste. To prepare such fields to receive the delicate pea plant will require more labor than will be given in most instances, and the peavine crops will probably suffer in consequence.

The portions of crops seen on Grand Caillou and Terrebonne present a mixed appearance; as seen elsewhere—ratoons of the first year generally very promising; some indifferent stubble, evidently of the second year, and the corn generally small from late plantings owing to the unfavorable spring.

The fall planting on Honduras, of Mr. S. Shaffer, is the most promising seen this season. The present milling plant is being removed to be replaced by another with more strength and capacity.

The plant cane on Woodlawn, of Mr. C. B. Maginnis, presents a favorable appearance, with a uniform stand. A large dwelling is being erected on the site of the old mansion—burned some time since.

When the dredgeboat of Mr. R. Barrow now on Bayou Salé, nearing the lower line of Myrtle Grove, reaches its destination, then the drainage of that place and Presqu'île, of the Messrs. Gulon Bros., will be very materially improved, and the annual crop output will be increased on each place.

Wednesday of last week was foggy in the morning, with clearing weather later; Thursday, partially cloudy; Friday and Saturday, bright, with very cool northwest winds for the season; Sunday, fair and not so cool; Monday, variable; Tuesday, cloudy at sunrise, with light local showers, hardly enough to lay the

dust before noon, with the sky overcast for the balance of the day, and Wednesday morning, clear and cool.

The official weekly weather report from Schriever is as follows:

		Temperature.	Sunshine	Rainfall.
May 2	88	68	100	.....
" 3	89	68	100	.....
" 4	90	58	100	.....
" 5	89	58	100	.....
" 6	88	62	.75	.....
" 7	72	43	100	.....
" 8	76	43	100	.....
	84	57	.96	.....

TERREBONNE.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: Pleasant showers of warm rain fell over this and the adjoining neighborhoods on the evening of the 5th inst., followed by clearing and cooling weather on the 6th. The wind sharp from the north brought the mercury down to 44 deg. on the 7th, and to 56 deg. at sunrise on the 8th, since which time it has been growing warmer.

The cold snaps and north winds which have been making their weekly visits for some time past are not at all relished by the planters, particularly those who plant cotton. Cool weather is destructive to the young plants, no matter how careful the farmer may be in the preparation of his soils, seeding and cultivation. The cotton plant is too tender to grow and develop in a low temperature.

While with some corn planting was, through no fault or lack of energy, delayed, it is found upon investigation that not a few of the foremost farmers in this parish have succeeded beyond expectation, having to date laid by their entire corn crop, finishing the same by sowing pease, and are now in a position to devote time and attention to the cultivation of cane and cotton.

From what can be learned at this date the cane growers seem to be in a decidedly good frame of mind over present prospects, regardless of the weather variations which have prevailed since the beginning of the planting season. A better nor more uniform stand and growth could not in reason be asked for. The fields are to all appearances free of grass, with the rich soil thoroughly broken around the tender canes so as to furnish nourishing food upon which the young plants may obtain subsistence and develop a mature growth of fibre and saccharine matter in season.

The opportunity being presented, THE PLANTER's scribe took a turn on the first of this week up and through some of the plantations along Bayou Boeuf as far as the parish of Rapides, and was pleased to find the farmers and planters well advanced in farm and field.

On the Ellen Kay plantation, Mr. C. F. Knoll's fine property, the 225 acres of plant cane, which Mr. Knoll kindly carried THE PLANTER's correspondent over in his buggy, was found to be in every respect promising. The stand of cane in the rows is something remarkable. Mr. Knoll is confident that there is now cane enough in sight above the surface to produce forty tons to the acre without the

addition of another cane. It is really something phenomenal, considering the season which has prevailed since planting first commenced.

The soil is in such friable condition that the crop is now virtually made. The eighty acres of first year's stubble which was brought to my notice is, to say the least, superb, and the 175 acres to corn is perfect in stand, growth and color, and now about ready to lay by and plant to pease. Driving forward, I was shown a field of seventy-five acres to cotton, from which Mr. Knoll claims, and justly so, that he will gather two bales of the staple to the acre planted, which, judging from his manner and method of cultivation, will yield a handsome profit when sold as low as 5 cents per pound. The Ellen Kay plantation is built up and enriched solely by the planting of pease through drainage and careful cultivation. Mr. Knoll contends that he can raise the soil at least one inch each year by the system he employs in the preparation of his soils for planting, and at the same time grow an average of forty tons of cane per acre with each ton of cane complete in sugar contents by the use and employment of no other fertilizers than the pea, drainage and manner of cultivation (here is an opportunity for some of our learned soil doctors to get in their disputations).

No other but the best and latest make of implements used on the place. The work is thorough and at the same time complete at a minimum cost decidedly satisfactory to the manager, Mr. R. Woods, and the stirring proprietor. My time was so limited that I could do no more than get a hasty view of Mr. Knoll's Shirley plantation just across the line in Rapides, planted this year to corn, cotton and pease preparatory for cane next season.

Of some other places which lay along my way I will mention that Mr. Wm. Cansey, Eola P. O., has a pretty farm of his own and the charge of the Keary plantation, and has made an excellent showing in the cultivation of his fields to corn and cotton. Every one spoken to was anxious to get a warm rain on their growing crops. It has been learned that the crop prospects in the neighborhood of Cheneyville are excellent. Reports from all over the parish indicate crop prospects fairly good and field work well advanced. ERIN.

Sugar in London.

The American-Spanish war, for the reasons stated last week, has had a material effect upon sugar, and the market has been in an excited and advancing condition. This has been added to by the rise in the price of almost all other foodstuffs. It was generally acknowledged that the position of sugar was a strong one, but the suddenness of the present moderate rise is due, of course, to the outbreak of the war, an event which no one could have foreseen a few weeks back. With the exception of last year, when stocks were 10 per cent. higher, the price of sugar is still as cheap as, if not cheaper than, at any previous period in April, a time of the year when the pressure of the beet crop ceases, and when people begin to think of the coming larger demand. A cheerful feeling,

therefore, still prevails in the market, notwithstanding the late rise, and although no considerable further advance is looked for. The trade probably now hold better stocks than they had, and there is plenty of sugar about to come. Nevertheless, it is generally thought that the movement in sugar has not yet terminated, though the early May tenders may prove a drag upon it.

A sharp rise has been established in speculative beet, but there have been several small fluctuations at the highest point, with indications that the continent are inclined to sell here at the present more remunerative rates, while, so long as matters remain in the present disturbed condition, America may not be a buyer of sugar in Europe. At the moment, their weekly receipts continue to be large, because of the hurried shipments from Cuba, prior to the blockade, and are considerably heavier than their refiners' meltings. No fresh news of the probable extent of the beet sowings has been received, but the improvement in values has probably come just in time to determine matters in favor of sugar. Cane kinds have been in good demand, more particularly for grocery crystallized, which is in short supply, and has risen 1s. per cwt. in the last few days. Large quantities of this sugar have lately been shipped to America. There were no imports of crystallized raws to London for the week ending 28th inst., the total for this year remaining 9549 tons, against 14,029 tons in 1897.—*P. M. Review*, April 30.

Mr. Jos. Dalferes was head sugar boiler of the Camperdown refinery of Messrs. Birg & Sutcliffe during the past crop. Mr. Sutcliffe manages Camperdown, and certainly selected a good boiler when he chose Mr. Dalferes.

Mr. A. M. Underwood, of the well-known planting firm of Underwood, Short & Bell, proprietors of the BelleVue place near Franklin, was in the city on a visit a few days ago. Mr. Underwood put up at the Royal.

Mr. C. W. Bocage, of Terrebonne, visited the city on Wednesday, stopping at the Hotel Royal. Mr. Bocage was accompanied by several members of his family.

Mr. R. R. Barrow, of Houma, came up to town during the past week on one of his customary visits and stopped at the Grunewald.

Mr. W. P. Marsh was the superintendent and head engineer on the Oak Lawn place of Messrs. Rivers & Weems during the past crop. Mr. Marsh has long had the reputation of being a "good one" and further comment in regard to him is superfluous. Cleophas Dugas, Esq., and his son were the sugar boilers at Oak Lawn, and both are reported to be all right at the business.

Mr. Daniel Thompson and family were in the city during the past week, en route for Kentucky, where they will spend their vacation.

Mr. Stephen Elger was the chemist during the past season on the Adeline plantation of Messrs. Oxnard & Sprague. Mr. Elger is a gentleman of great experience in his profession, having practised it in many different localities and under many different conditions. He is now located in Chicago.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, April 23, 1898.

Editor Louisiana Planter: I am sorry that for a long time I can not help repeating the same thing with regard to the weather, viz.: that in the week under review it has been again bad, with only slight exceptions as to time and sections. Cold and wet, more particularly at the commencement of the week, were the predominant features of the weather, and only later on some change has taken place, inasmuch as in the western part of the empire the rains became less frequent and less copious, whilst the temperature remained very low. But however slight the improvement has been it enabled the farmers to do more field work than before, and to proceed on certain places also with beet sowings. The eastern provinces, however, were much less favored, and, as the weather there continued very variable, beet planting could not be thought of yet. This operation is now undeniably a fortnight backward, and if a speedy change of the weather does not occur the lateness of the season is liable to assume dimensions which may seriously compromise the result of the year's beet culture. It is an old experience confirmed by success and failure, as the case may be, that early sowings are an advantage, which for this year in Germany is irretrievably lost, except the season be distinguished by exceptionally fine weather. As to the beet growing countries besides Germany, the difference between west and east, in favor of the former, is there also justified, France no doubt being best off, continually fine weather having prevailed there.

Holland and Belgium are a little less satisfied, but more than Germany, whilst in this country things look still a trifle better than in Russia, where the winter has taken leave only a short time ago.

Austria's condition is rather normal, but more warmth is there wanted too. Next week the first figures of this year's extent of beet growing will be obtainable, as the several statistical bureaus of the European beet sugar manufacturers are now going to prepare the publication of the returns elicited by the usual Spring inquiry.

The Austrian government has, as foreshadowed in my last letter, issued the decree prohibiting the free sale of saccharine and restricting it to the drug stores for medical and dietetic purposes. As a curiosity I will mention that saccharine, even without any addition of arsenic or strychnine, is recommended by a Prague firm, as an effective means of destruction for rats, mice, cockroaches and other kinds of "domestic animals."

In Germany appropriation has been made for the founding of an institution for the protection of plants, the work of which will be to study all visible animals on plants, with a view to their effective destruction. Beet culture is as a matter of course greatly interested in the enterprise, as there are different enemies of the beet which so far have not been

fought quite successfully. In this regard I might name only the nematodes, heterodera schachtli, and a fungus "phoma betæ" which is supposed to cause the sickness of beets known under the name of "heart rotting."

In the Russian empire the interesting and for sugar men altogether gladdening observation has been recently made that sugar consumption is increasing at a remarkable rate, and the fact is not only noteworthy in itself, but it is also a lesson for whom it concerns. The sale of spirits has been, by an act of legislation, made a monopoly of the government, and the result is that all liquor stores and saloons have been shut, and that all kinds of spirits are sold only on certain times of the day in sealed bottles. Now in the place of these saloons, etc., a great many tea houses have been called into existence, and as the latter are much frequented, it seems that the wholesome innovation is taking root with the people and it hardly need be mentioned what the cause of the sudden increase of sugar consumption is. Of course, nothing else but the augmented consumption of tea which is a powerful vehicle for the use of sugar. And the movement has only reached its first stage, as the monopoly has only been introduced in one-third of the Russian empire. It must, however, not be forgotten that the completion of the Siberian railroad, the most gigantic enterprise of modern times, is also largely contributing to the increase of sugar consumption in Russia. The commodity now reaching quarters too remote hitherto from civilization to be reached by trade in general and by the sugar trade in particular.

The sugar refinery of Frelstedt (Brunswick) says in its last annual report that the results obtained last year did not fully answer the expectations entertained at the beginning of the season, partly because of a strike interrupting work for some time, partly on account of necessary enlargements and improvements, which, however, have proved very useful. The establishment is one of the molasses working factories using the strontia process. In spite of the above quoted disturbances the quantity of molasses worked was about as large as in the preceding season, viz., 28,300 tons. The total receipts were 471,786 marks, out of which a net profit of 85,444 marks was cleared, permitting them to pay a dividend of 6 per cent. to the shareholders instead of 4 per cent. as a year ago. You see the results are not brilliant, but anyhow better than last year, which goes to confirm my statement made some time ago that the business of the refineries is decidedly on the mend.

The apparatus and machinery of the beet sugar factory Helvetia, at Monthey, Switzerland, of whose collapse I duly have informed your esteemed readers, has been sold to a Paris firm for about half the cost price. Part of it is to go to Italy to be employed in the erection of new sugar factories.

The tendency of the markets has been in the first half of the week under review quiet but steady. In the latter days, however, a firmer tone set in and business assumed a brisker appearance than for a long time since. This change is due to the development of political

affairs, that is to say to the opening of war between the United States and Spain, the opinion gaining ground that America will need more beet sugar, the cane sugar supplies being curtailed by the absence of imports from Cuba, Porto Rico and the Philippines. Prices rose in Germany about 10 pfennigs, and actual 88 per cent. sugar is quoted at Magdeburg at 10 to 10.25 marks and delivery April is worth at Hamburg 7.15 marks, f. o. b. Refined close also firm and are 12½ to 25 pfennigs higher.

ROBERT HENNIG.

Sugar Industry of Tucuman, Argentine Republic, in 1896-97.

Sugar production in the province of Tucuman has followed during the past fiscal year the ascending scale already indicated in previous reports from that province, the crop for 1896-97 having amounted to 135,606 tons. For the five years preceding, the figures are as follows:

Years.	Tons.
1891-92.....	45,000
1892-93.....	40,000
1893-94.....	55,000
1894-95.....	74,000
1895-96.....	103,000

Thirty-four sugar mills were in operation during 1896-97; of these establishments, five, which turned out 23,000 tons, are owned by Frenchmen; two, which produced 8000 tons, are owned and operated by sons of Frenchmen, citizens of Argentina; and three, whose production in the aggregate amounted to 22,500 tons, are the property of a German company. Besides these, there are: One Spanish plant, producing 8000 tons; one Swedish and one American, with an output of 1600 and 2154 tons respectively. The remaining twenty-one are exclusively of Argentine ownership. With the exception of the three German plants, the American plant, and one other, whose machinery came from England, these establishments received all their appointments from France.

For the fiscal year 1897-98 a production of more than 150,000 tons is anticipated. The Argentine market may therefore be considered, from the present, as closed to European sugars, with the exception of small quantities of refined sugar introduced for the use of certain rich consumers.

The above data applies solely to the province of Tucuman. In addition may be given the production of sugar in the neighboring province of Salta, Jujuy. The Chaco and Corrientes, which, according to an official report, amounted in 1895 to 15,000 tons; and in Santa Fe, Formosa and Santiago the production for the same year reached 9000 tons.—*Bulletin Bureau of American Republics.*

Mr. Walter I. Barton, a prominent sugar planter of this State, was in the city on Saturday and registered at the St. Charles Hotel.

Mr. J. W. Foote and Mrs. Foote, of St. Mary, were in the city on a visit a few days ago and registered at the Royal.

Mr. John R. Gheens, of Lafourche parish, was registered at the St. Charles Hotel on Sunday.

BEET SUGAR.

Eddy, New Mexico.

Everything having bearing upon and affecting the beet season for 1898 in the Pecos Valley continues most auspicious.

The sugar management states that an acreage of about 200 will be secured in the Barstow, Tex., district. A very gratifying fact, as it evidences the interest which the farmers are taking in the beet crop. The acreage continues to increase in the lower valley, and is now far in excess of the total acreage last year. All the beets planted are coming up exceedingly well, and give excellent promise of a large and profitable crop. Many of the farmers south of town having planted the acreage originally contracted for, are asking for an increase, desiring to devote more land to beets.

Contracts from Hagerman and the upper valley are coming in slowly, more slowly than is desirable, and the management believes that if the farmers there will investigate the condition and the acreage being planted in the lower valley, noting the interest manifested by the growers, and then trained and educated by two years' past experience will go ahead in this third year—the year of success in all beet districts—and put in a reasonable acreage, they will receive resulting benefit themselves and guarantee the most complete success for the factory. If the farmers of the upper valley will plant half the acreage put in by them last year, say 500 acres, there will be no question as to the factory having a sufficient tonnage of beets to guarantee a successful campaign.

The company is evincing every inclination to assist farmers in every way possible with their crop this year so that nothing may hinder the most complete and satisfying results. As an instance of this it has just purchased two large horse sprayers, ten hand sprayers and ten knapsack sprayers. They have been tested and found to work excellently. They will be distributed as conveniently as possible throughout the farming districts. The sprayers, with the solution of Paris green, for use upon any insect which may attack the beets, will be placed at the disposal of the farmers free of charge. Certainly a most liberal arrangement in every way. The spraying solution, as compounded by Professor Skeats, is made by mixing one-fourth pound of Paris green with water to a fine paste and then mix thoroughly with forty-five gallons of water, to which add one gallon of lime water. Stir occasionally while using.

Where there is danger of fungus Professor Skeats advises the use of the following: Dissolve one-fourth pound of white arsenic and one-half pound of carbonate of soda in one-half gallon of water by boiling. In a forty-five gallon barrel dissolve six pounds sulphate of copper in about ten gallons of water. To this add lime wash made from four pounds fresh slaked lime (add through strainer). Add the arsenic solution and fill up the barrel with water. Stir before using.

Farmers desiring lime to prepare the above mixture will be accommodated at the factory.

Professor Skeats, respecting this year's supply of seed furnished by the factory, has made

a report to the different companies of the valley that it is satisfactory in every way. The germination is perfect. The seed is of a character to give both a large and a rich beet, and was selected with that end in view.

The work on the fields being cultivated by the sugar company is going along nicely. The company expects to put in at least 500 acres, and will increase that number if it has the time. Two hundred acres are already planted. Thinning will begin on part of the fields next week, the thinning gang now being organized. An opportunity is here afforded for unemployed labor.

As said, the company is pleased with the manner in which contracts are being signed, but to give the factory a tonnage guaranteeing a satisfactory and successful run, 500 acres more are needed and contracts will be made for that number in addition to those already signed for. This should be quickly secured. The season opens more favorably, giving every promise of proving a good growing year. The planting time has been one of satisfaction, and the usual afflictions of a beet crop give no intimation of materializing. Compared with conditions prevailing in other districts the Pecos Valley is especially favored.

The future enlargement of the sugar industry in Eddy and the Pecos Valley depends very largely upon this year's work. The farmers can aid as largely, if not more so, than any one else.

There are few communities fortunate in the possession of an industry of the magnitude of the beet sugar factory in this valley. Its complete and full success should be the wish, the aim and the endeavor of the whole people.—*Pecos Valley Argus, April 29.*

Lehi, Utah.

Manager Cutler leaves this week for a business trip to the East. His knowledge of the beet sugar industry brings him into much prominence lately.

The rains of the past few days have been of incalculable value to growing crops, and, with others, the beet crop will be greatly benefited. The seed is now all planted, and these rains will give it a good start. While prospects for a good beet crop in other States are discouraging they were never better for a good crop here.

Superintendent Austin and Edward Smith left on Saturday for LaGrande, Ore., where they go to assist in planting beets. Superintendent Austin will remain about two weeks, but Mr. Smith may remain until the beets are harvested next fall. He is an experienced beet farmer, and will be useful in that new district. This makes three of our farmers who are up there. The people have gone into the beet business to make a success, and have secured the assistance of some of the best beet raisers in the inter-mountain country.—*Banner, May 5.*

Chino, California.

This week has given us the best weather we have had for a month for growing crops. Early on Sunday morning rain commenced falling, and continued until afternoon, the

precipitation amounting to .42 of one inch. This was followed by several foggy mornings and cloudy days, retaining the moisture in the ground. The soil was made moist about three inches deep, doing a great deal of good.

In an interview with Mr. Ruop yesterday, he said that on all the lower land, where the moisture from below met that from the rain, an immense amount of good was done the beets by the shower. On the land usually rated as semi-moist, however, where there is still dry soil under the top moisture, he considers that no permanent good was done the beets. In fact, they are in worse condition than they were two weeks ago, on account of the hot weather of last week.

There have been 4200 acres planted altogether on the Chino ranch. Of this, 3000 acres are on the lower black land, and on that the beets are doing fairly well. But on the remaining 1200 acres of drier land planted, nothing is expected.

At the present time Mr. Ruop says there are 1020 acres of good stand on the ranch. Of this, 800 acres on the lower land are doing well. The other 220 acres are doubtful of a crop.

Planting had been completed last week, but the rain encouraged the planting of 100 to 150 acres more this week, which is now about finished.—*Champion, March 6.*

A New Diffusion Battery.

Again Lehi men come to the front in the beet sugar industry. This time it is a new and improved diffusion battery which has been invented by Superintendent Vallez and Engineer Ingalls of the Lehi factory. We mentioned this improved battery some time ago when it was first perfected. A patent has been applied for and the gentlemen are sure of securing one in the near future. Since their application another one has been filed which is an infringement in some particulars so they are anxious to get their patent as soon as possible.

It is a continuous battery which takes the sugar from the cossette quicker and with less work than the present system. In the new battery the cossettes go through the whole of the cells, being transferred from the bottom of one cell to the top of the next by an elevator, and when through the series is run out as pulp. The hot water runs through all the cells, but in an opposite direction from the cossettes. The beet cutter need not be placed so high, as all the cossettes are fed at the same place, so a movable spot is not needed. It is automatic and very simple, so it can be run much cheaper and better than the present system and will undoubtedly give better results.

It is very likely that an experimental battery will be worked during the campaign, when its practical value will be demonstrated.—*Lehi Banner.*

Mr. R. A. Snow, a skillful vacuum pan man, was in charge of the boiling department on Mr. Walter A. O'Neill's Linwood place during the past crop season. Mr. Snow is reported to know pretty much all there is to know about his business.

Comparative Advantages of Fall and Spring Planting.

[A paper by DR. W. C. STUBBS, read before the Louisiana Sugar Planters' Association, May 12, 1898.]

The conditions attending the growing of cane in Louisiana must be first studied before any operation of planting or cultivating can be intelligently discussed. The cane is a forced annual in Louisiana, our climate preventing it from attaining full growth and maturity. In the tropics it is rarely harvested until fifteen to eighteen months old. The stalks are larger and the juices therefrom are of a higher density. There every opportunity is given for the full exercise of the natural function of tillering or suckering, with a confidence based upon experience, that each sucker will have ample time before harvest for full development and maturity. Cane is therefore planted in holes, usually four to six feet by five to six feet, depositing a cutting nine to ten inches long, usually taken from the lower end of the cane top, and which has sufficiently matured to undergo successfully the process of germination. Sometimes the stalk, rejecting the two or three extreme lower joints, is cut up into pieces having two joints and three nodes and used as seed. The latter has been found by experience to give an inferior stand to that secured by the planting of tops, due doubtless to the injury sustained in cutting by the eyes, so prominent on the stalk, while those on the tops are amply protected by the adherent sheath. An advantage is gained by planting the stalk, in relieving the planter of the expense of manufacturing the cane, low in sucrose, into a sugar or syrup, which must be done when only tops are used for seed, since at the season of planting all canes are immature. The sources from which the seed is derived are, first, a nursery specially grown for the purpose—six to eight months old. The tops are taken from these immature stalks and the remainder usually converted into syrup, being too immature for sugar making. Second, plants are cut from old ratoons. There are usually three eyes to each cutting and only one cutting is placed in a hole. They are placed either horizontally and covered, or are pushed down into drill holes, bored with an inclination toward the point from which the prevailing winds blow. These three eyes furnish ultimately stalks enough to occupy the areas of the holes, and that variety of cane, other things being equal, is preferred which will give the largest number of suckers. In some instances the mother stalks are removed to increase this habit of suckering.

The time of planting varies in different countries and is determined, first, by the convenience and pleasure of the planter, and, second, by the prevalence of the rainy season, and, third, the season at which the cane usually arrows. There being no winter, the cane can be planted or harvested at any period of the year, and hence the times selected are those best suited to the planter's environment. In climates where irrigation is practised there the selection of times of planting and harvesting are almost entirely determined by the planter's pleasure and convenience.

In Louisiana we are dominated by climatic conditions. Our cane must be harvested annually before the appearance of winter's frosts and ice; our planting must be made so as to escape, on the one hand, the icy touch of winter, and to enjoy, on the other, all of the sunshine and showers which our summers will afford. It is, therefore, planted in the fall, prior to the harvest, or in winter and early spring, directly after the harvest. It has a short period of growth at best, and those conditions which will push it from germination to harvest with the greatest rapidity should be established, since it is well known that, other things being equal, the older and larger the cane, the greater the maturity, and therefore the larger the tonnage and sucrose content—valuable factors in successful cane culture. In Louisiana, unlike the tropics, every attempt should be made to repress as far as possible the natural function of the cane toward suckering—checking this tendency forces the stalks already established into growth and the larger the growth the larger the stalk and the richer its juices in sucrose.

The benefits derived from the use of the disk and other side cultivators are apparent in several directions, but few planters, however, realize that the checking of this tendency of the cane toward suckering is chief among them. Our canes have latitude to sucker only along the axis of the rows and hence soon filling this space, they are constrained to devote their energies to growth and development.

Here we plant in open furrows along the axes of rows two to four continuous stalks of cane as seed, requiring from four to eight tons of good merchantable cane for each acre planted. So large a quantity is used to secure a stand which without many additional suckers will occupy the entire furrow assigned. Many suckers appear, but most of them are strangled in the battle for existence. We rely only partially upon suckers for our crop. In the tropics suckers constitute the chief crop, and frequently the few mother stalks are removed early in action to increase the room for suckers.

Those suckers which form a part of our crop are started in April, May and June. It has been clearly shown that the earlier a sucker is started the more mature it will be at harvest. Hence that planting which will give plants sufficiently advanced to perform the function of suckering as early as our seasons will permit will give the largest and richest crop at harvest.

In handling this question it is presupposed that our lands are well drained and well prepared. In other words, the same artificial conditions prevail both with the fall and spring planting. Given these similar conditions the question is, whether our climate favors fall or spring planting. Local conditions may exist, many of which are removable, which may predispose the planter in his selection. As a rule, cane is planted in Louisiana from the middle of September to the 1st of April. Many begin planting in September and continue till harvest begins, and then when the

campaign is over renew planting until through. On large estates this custom generally prevails, but there are some who persistently refuse to plant in the fall, claiming too great damage from the cold winters, and plant their entire crop in the spring.

An experience for twelve years at three locations in this State, South, Middle and North Louisiana, has demonstrated that fall planting, if properly performed, is most profitable.

The young canes come up earlier, and larger yields are obtained at harvest. It has been found that two canes stripped of their foliage and deposited carefully in an open furrow, in continuous rows on land well drained, and covered with fine earth to the depth of three or four inches, will keep through the winter better than a mass of cane with adherent foliage, covered with turn-plows—our usual method of windrowing for seed. It is best, if planted early in the fall, to cover only with an inch or two of earth, so as to permit early germination, and afterward, as the winter approaches, to add an inch or two more. This last addition prevents the destruction of the sprouted canes, as well as insuring the preservation of the stalks planted. In the early spring or late in February, by removing the excess of covering, the young sprouts start immediately into fresh growth. Fall plants come up earlier and larger yields are obtained at harvest.

A decided obstacle to fall planting often presents itself in the usual dry weather prevailing in this climate during fall, which prevents that pulverization of the soil so essential for a proper seed bed. Cane planted in the fall upon cloddy land, unless covered very deeply and properly rolled with a heavy roller, is liable to "dry rot," since the cloddy land permits of a too rapid evaporation of moisture from the cane. Many fields have been lost from this cause, until now a heavy iron roller to pulverize the lumps and compress the dirt around the cane is almost universally run over the cane after covering it. A good irrigation of the soil before planting will completely disintegrate the clods and prepare the soil for an excellent seed bed. This has been twice successfully accomplished on the station. If fall-planted cane be covered with fine earth to the depth of three inches, and this earth compressed with a heavy roller, there need be no fear of dry-rot. If the canes be placed in a furrow above the levels of the middles, and the latter kept six inches above the quarter drains, and the middles, quarter drains, ditches and canals be kept open so as to permit of thorough drainage, there will be no danger from wet rot. Careful attention to these precautions will, it is believed, insure success with fall plantings all over the State, and in the end prove more profitable than spring planting. Again, finishing planting in the fall gives the planter an opportunity of devoting more time in the spring to the early cultivation of his crops.

One serious objection prevails to fall planting, an objection equally as potent against an early harvesting of cane, viz.: the injury done to the stubble from which the cane is taken

This is usually obviated by using the oldest stubble for seed, stubble which is destined to be ploughed up the ensuing year. This remedy involves the use of the oldest and poorest cane on the plantation for seed (a custom which in the opinion of some will ultimately greatly deteriorate our crops) and hinders the use of selected canes for seed. While this objection to fall planting is valid, a similar one prevails with the practice of spring planting, for the stubble in which cane is windrowed is practically destroyed by the operation. It may also be remarked here that the early opening of our sugar houses, to avoid the dangers of cold near the end, is attended with two distinct kinds of losses; first, in sugar from the present crop by the small yields usually obtained in the beginning by working green immature canes; and, second, a decreased yield in the next year's crop, due to injury to the stubbles by cutting off canes so early in the season.

The combination of these losses, annually occurring, in the opinion of the writer will prove in a series of years far greater than the damage that would be sustained by the cane later in the season from freezes occurring at long intervals. A better policy would be perhaps to postpone the beginning of the sugar campaign until November 1 and utilize the whole of October in planting. It is rarely the case that the yield of sugar per ton after a freeze is as low as that usually obtained in the early days of grinding, and only at long intervals (once in last twelve years) is the severity of the cold sufficient to split the stalks of cane and render them useless for sugar making. Even here a resort to windrowing late in the season is an insurance against such occasional losses.

The preservation of cane for seed is always attendant with some losses, either of cane or of the eyes on the cane. Putting the cane into windrow and digging or pulling it out in the spring, transferring it to wagons, hauling it to the field, removal from the wagon and depositing it in the open furrow, even when every operation is carefully performed, must result in some injury to cane and eyes. When carelessly and hastily performed, as is too frequent on many plantations, the losses from injury are large and often necessitates the planting of three to four running stalks to insure a stand. Again, the digging up of the windrowed canes, often sprouting, and always more or less fermenting and exposing to the air and sunshine and rough handling, by which the sprouts are broken off and the fermentation largely enhanced, increases largely the risks of spring planting, to overcome which larger quantities of seed are used, thus entailing an increase of plantation expenses, now already far too large for the price of sugar.

Frequently continuous rains in January and February, with the soil already wet and the sun at its lowest inclination and therefore with the least power of evaporation, extending through the shortest days in the year, will prevent spring planting and throw us well into March, and sometimes into April, before planting is completed. In the meanwhile the cane

is sprouting in the windrow, the soil is imperfectly prepared, and other work of the plantation is calling loudly upon the manager. Impatience and haste enters into farm work, the cane is carelessly handled and imperfectly planted, and bad stands the results.

The fall planting, in the meanwhile, is marking the row and pleading loudly for cultivation. The writer has never yet discovered any advantage whatever in spring planting, and only imperious necessity could, in his estimation, justify the practice.

Summing up the advantages of fall planting, we have, briefly:

1. Cutting the cane and transporting directly to the grounds and planting involves the least injury to the cane; therefore a much less quantity is absolutely required to plant an acre.

2. This process is also much cheaper in labor than spring planting, which necessitates the windrowing of the cane, digging it up, transferring and planting. This extra handling also involves the destruction of many eyes, and the exposure to the sun and air favorable to rapid decomposition.

3. A few stripped canes carefully deposited in well-prepared soil and covered will keep better than numerous canes windrowed with all adherent foliage and, at best, covered imperfectly.

4. Fall planted canes germinate earlier and better, and if properly cultivated will give larger and better yields.

5. Planting in the fall enables the planter to start early in the spring to the cultivation of his crop, a condition greatly to be desired as the first step toward securing a good crop.

German Country Life.

The house, half grange, half castle, was new—hardly older than the Seven Years' War. Its tower wore an air of vacillation, as if it had been intended to be a donjon, but, doubting in time of its efficiency in that capacity, had compromised to a decorative chimney. Standing in an island of trees growing right up to the windows, the house seemed to have neither front nor back, only sides. Round it lay, here a few straggling flower beds, there a tangled plantation, there a kitchen garden muffled in a rank mantle of weeds. Outside the coast line of the trees the wind whipped over the plain of middle Germany till you could scarcely stand against it. You saw immediately why the house was so dyked with them; looking out behind their shelter upon the dry fields under the unclouded sun, you would have said the day was windless. Under the lea of the house stood the village; in a field to the right of the village hummed the threshing machine; but for that, to the right and left you could look out forever over yellow-brown corn fields and brown-yellow fallows till they were swallowed in the dip of the plain. No other clump of trees in sight; that meant no other manor house and no other farm; that in turn meant that the land was all one proprietor's, who farmed it all himself.

The proprietor—tall, big, slightly heavier in make and movements than an English gentleman of the same height—walked over his

fields among his men. "Since I am no longer Minister of State," he said, "I stay here and farm all my land. It is—how do you say it in English?—more dignified so." Possibly that was not quite the word he wanted, but it was a very apt one. To farm the whole or a great part of one's land is almost the universal custom of the German gentleman. He shoots roe in the season and partridges and hares; but he neither hunts nor fishes, and even shooting he pursues as an occasional amusement rather than as a vocation. What sport is with us farming is with the Germans. Not a small home farm, or a model stud, or a modern herd—perhaps not enough of this—but the ordinary wheat and beet, butter and fatstock business, carried on under strictly business-like conditions. The German looks to his sales as the Englishman looks to his rents. "It is a good life," says a cavalry lieutenant; "ten years in the army one amuses one's self, and then one marries and lives on one's *Gut*." The Cabinet Minister "out of service," as they put it in their military phrase, goes back to his farming as contentedly as the officer. "It is more dignified so."

This custom leaves its mark, first on the nobility as a class, second, on the social and political status of agriculture in Germany, and indeed of Germany as a whole. The Germans appear to be by nature a simpler folk than we; they are poorer, live harder, draw a strict, liberal, half-heroic, half-childlike line between duty and pleasure. That they continue this, despite their growing wealth, is due more than to anything else to the farming nobility. When the highest class of society is eaten away by frivolity and by the observances of "society" in the baser sense, as in old France, and to some degree in France, Austria and even Britain to-day the fashion is found very catching. In Germany, on the other hand, the incitements to luxury, to the rubbing out of the line between duty and pleasure—between what must be done and what may be done—come, not from the aristocracy, but from a part of the middle class. Bankers, merchants and manufacturers have ridden highest on the wave of German prosperity since 1871, and from these classes—especially the Jewish section of them—come most of the recruits to the fast life of Berlin. The nobility, as a class, gives no countenance to dissipation, serving the State, in army or Senate, and especially living in the country, the land as the sailor follows the sea, neither Puritans nor wastrels. And while nobility discountenances the new frivolity it will get no great hold on the social layers below. The Rittergutsbesitzer spends the days on his fields. The Jewish merchant who buys his corn may spend the nights behind the scenes if he will; the German will not be in much doubt which to imitate. An aristocracy in hobnailed boots is a great preservative of Roman virtue.

It is not to be supposed from this eulogy that the German land owner is anything in the way of a general philanthropist or the apostle of any kind of millennium. He does his duty out of self-respect, not at all out of love for his fellow-men. He may answer his peasants'

salutes with affability, with condescension, or not at all, according to his temper; but, suave or grim, he is unswerving in his conviction that they must be kept in their proper stations—must not only work for him, but accept his guiding wisdom in all the concerns of their lives. When the peasant works directly under the noble there is little room for any nonsense about the rights of man. The lord takes conscientious care that the vassal shall have what is good for him, only it must be owned that the current conception of what is good for a peasant is not the modern one. Votes, for example, are decidedly not good for him. The German peasant at the moment is the creation of the German land owner, and he has his faults as well as his merits. He is well educated, scholastically speaking, and yet he seems wonderfully unintelligent. Look at a German regiment parading past, with a step suggesting an especially self-satisfied Brahmacock. Bodily the privates are full of dogged strength, if sometimes overtrained; but from their faces you would judge them stupid, brutal, half savage. A hundred and fifty years of elementary instruction, and added to that the inestimable educational advantage of two years' military service in a town—yet he seems to have just reached the level of the southern English laborer, to lag hopelessly behind the north-countryman and the Scot. The impression may be partly delusive; but it remains indisputable that the rural laborer in intellectual, well-educated Germany is surprisingly dull and unintelligent. The truth is, that he has learned to read and write, but has never learned to think; and for that the conditions of his life under the shadow of the big house seem at first chiefly responsible.

The farm laborer in Germany is in effect a house servant. Indeed he is almost *adscriptus glebae*—a superior kind of serf. The row of cottages in which he lives forms one side of the court of which the proprietor's house is another. He pays no rent for his three or four rooms; that is part of his wages. He buys no food; that also is part of his wages. It is not even cooked by his wife; there is a woman-servant in the house whose sole business is the feeding of the laborers. She bakes the long, black loaves once a week; thrice a day she prepares their meals. These meals are poor enough; it is a considerate employer who gives coffee in the morning with the bread, or meat in the mid-day soup, or lays out a nip of schnapps with bread and cheese for each man between dinner and the sour milk and black bread at supper. This is hardly a comfortable preparation for long hours and hard work; but the German countryman lives hard in every class; the proprietor himself is usually content with the black bread and hot meat only once daily. Besides cottage and food, the master finds the man a field for his potato patch, and sometimes a garden as well; in harvest and other busy times his wife—released from half the burden of housewifery—is at work as day-laborer in the fields; at other times she is free for the potatoes, the garden, and the geese and the fowls. And besides the poultry, there is sometimes a pig or a sheep tethered by the side of the proprietor's private road, or even a

cow turned out on the proprietor's pasture. Wages—paid by the half-year—are not princely; £25 a year is perhaps the highest, and occasionally a man gets no more than £5. You must double this to get a fair idea of how far the money will go in Germany, but even so it is not extravagant. The rule holds that the proprietor gives freely of what is useless except to men bound to his estate. Cash, which is of the same value everywhere, and increases the independence and nobility of the laborer, he deals out more grudgingly. The farm-hand is, as it were, his lord's subject, and must look for the elements of his well-being within the limits of the kingdom. He has invested his all in it. The kingdom exports corn, stock, milk, sugar-beet, and imports manufactured goods; but that is not the laborer's concern. He prays to his God in his lord's chapel. His lord registered his birth and celebrated his marriage; he will register his death, and the cemetery is not beyond the frontier of the estate.

The peasant, in short, is a literal German translation of the Scots benefit-man. Some twenty years ago a new but wealthy family in the south of Scotland made a death-set at benefit-men, presumably because the dairyman's cow did not look well in the herd, and the ploughman's pig tainted the estate. There was, no doubt, more reasonable argument for the practical abolition of the benefit system. So little of a man's wages came in fluid cash it was urged that the laborer became the serf of his employer. He could not leave a bad master; his wealth was not in the savings, but in his cow and his potatoes and his garden. Thus rooted to the soil, a man must make a violent tug to loose himself and better himself elsewhere. Land is the one form of property you can not carry away with you, and the benefit man's standby was the use of his master's land. That is all true, and it is true also that a laborer paid in cash is more independent, that the power of changing his environment gives him the chance of enlarging his mind, of sharpening his capacities, of bringing into productiveness any exceptional qualifications he may possess. Yet there is much to be said on the conservative side. For a peasant of genius it may be well to take his money weekly, to live with his loins girded, ready to hasten at the first glimpse of the promised land where his genius will find scope. But, then, peasants of genius are not common, and the rest can perfectly well put forth all that is in them if they never move beyond the nearest market town. We may notice that even Robert Burns—the one peasant of genius that the world has yet discovered—would, on the view of his latest editor, Mr. Henley, have lost nothing of his power if he had never left Mossiel and never read a word of literary English.

How much more the others! For if the benefit man, whether in Scotland or Germany, is dependent on his master, he is hardly the less dependent on himself. The mere fact of receiving his wages by the half-year instead of by the week makes him look forward, calculate, plan, save. The agricultural parts of Germany are dotted with savings banks, over and above the State insurance, to which the proprietor subscribes, and from which the

farm servant draws in sickness and old age. The frugality of the Scots peasant needs no arguing. It is in midland and southern England, with wages paid by the week, that you find the laborer thriftless, improvident, resourceless, helpless. Small blame to him, when you count up his wages—9s. to 15s. a week—if he refuses to consider how he can most profitably invest his savings. But the German is even more poorly paid, and yet he saves, he calculates, he becomes so far a living human will and not a machine. To be sure his will runs parallel with his lord's, who is president of the savings bank; but will can still be will without being rebellion. The whole tendency of the benefit-man, whether Scots or German, is to become a co-operator with his employer. His interests are bound up with the land on which he works; so he works better, for one piece of land is not another, and each must be lovingly studied in its ways if it is to repay toll gratefully. He is always adding, if not field to field, at least beast to beast and plant to plant; witness the sheep of the Scots peasant, whose wool went straight into the children's stockings without any manufacturer or retailer to skin a profit off it. He has all the incentives of the peasant proprietor with the relative security of the worker for wages.

You may go even further in favor of the benefit system. While fostering comfort, zealous work, thrift, the sense of home, it does not necessarily subvert independence of character. Tyrannical employers you will find everywhere, but it is a general rule that where the laborer has the spirit of a free man he will be treated as a free man, whatever the system under which he works. You will not breed servility in a lowland Scot or a Hanoverian, even though his all is staked on the ground he tills, and to leave his employer means the sacrifice of it. You will hardly break the Hampshire peasant of inciting his children to curtsy to the carriage, or the Austrian of punctuating every remark with "*Küss die Hand*," even though he can put his all into his pocket and leave an exacting master at a week's notice. A man's a man or else he is a serf, and it will take a very long time of any given system of paying for labor to transmute one into the other. At least the German's greeting to his proprietor seems often almost surly; but his proprietor is usually man of sense enough to know that good manners do not always mean good work. You will find him less of a clod behind the plow than he was when marching out to company drill; and you will find him more cloddish here, less cloddish there, whether he lives his whole life under the proprietor's eye or not.

Let us leave our dignified Cincinnatus and go on to the next estate. This is let to tenant-farmers, for the proprietor is a woman and unmarried. Walk over the field and you will find the same checker of clean fields and dirty, according to the nature of the farmer, as in England. This unfed, thistle-blotched meadow is part of Faulmann's farm. "He is not a good tenant," babbles the toothless *Rentmeister*, who has been about the estate for fifty years. "He comes from Brunswick, and he does not know

the ways of this country." Let it be noticed, as a grotesque survival of German disunion, that you will find different weights, measures and customs in villages a couple of miles apart. Here they measure land by the Oberdorf *morgen*; on the other side of the river, where the old steeple rises out of its rampart of trees, they go by the Niederdorf *morgen*, which is only half the other. In Oberdorf nobody would ever eat a turnip; in Niederdorf everybody eats them, excepting one old couple who were born in Oberdorf. They have been on the Niederdorf side of the river forty years now, but they would no more eat a turnip to-day than they would rob a church. Great Britain is also a patchwork of local weights and measures and ways; but in Germany—where perhaps thirty years ago Oberdorf and Niederdorf were in different countries—the patchwork is crazier yet. Therefrom arises much industrial friction, which must go some way to balance the advantages of the metric system.

Faulmann, continues the *Rentmeister*, is not a bad man, but he has a way of reading novels instead of being about with his men—one branch of vice, at least, from which our farmer keeps himself quite unspotted. The truth is he has married a rich wife and—the old man harks back to it almost vindictively—he comes from Brunswick. But cross the broad, deep-water ditch to the next field and the *Rentmeister* becomes cordial. This is his favorite farmer—the Oberdorf man, who has been on the same land forty years. He is more like a peasant to British eyes than a tenant-farmer, and more like a toy than either—one of the toys that pop in and out of wooden houses to indicate good or bad weather. His wife is like him—like the weather-toy's wife—that is, ruddy, with ringlets framing her face, and the slight stoop of hard labor in her shoulders. Everybody on this farm wears the mark of labor; those are two of the sons ploughing at the farther end of the wide grass field, and the three daughters are down stairs in the dairy. The farmer's wife is most proud to welcome the gentry. She sits them in her second-best sitting room—the best is never used at all—and her man puts on his coat and sits down tentatively close to the door; it is quite plain that sitting on a chair, even in the second-best sitting room, is a luxury to be enjoyed sparingly. Then he remembers himself, gets up, reaches down a little jar with a bunch of cigars, and offers to the guest; then ceremoniously strikes a spluttering sulphur match for the same. We are now in a position to talk of the weather and the crops. It occurs neither to the farmer nor to his wife—her dialect is a shade less incomprehensible than his, or else she has more teeth left; at any rate the mare is plainly the better horse, and does all the talking—that the gentry could have anything else to talk about than farming. They plunge naturally into the subject of the rearing of calves; what else should gentry wish to talk about? It takes only a hint to start them on the round of stable and byre and barn, fields and stock, dairy and larder; is not one of the gentry a lady, and what should interest a lady more than a larder? And stopping before a new-weaned foal, with an even wider smile than

usual, "*Vollblut*" ("thoroughbred"), the old man triumphantly remarks. Yes, he was quite ready to admit that horse-breeding was a poor business, and he couldn't expect to beat Herr von Deggen on the next estate; he couldn't really afford it, but—but look at him! The pale eyes laugh in his gentle face as he looks at the beloved foal; the touch of nature makes the queer figure in old black frock coat and corduroy trousers kin to nobles and princes.

You find here much the same system with the farm servants as you do where the lord farms his own land. The farmer will not spare them a beast or a potato patch; they are not benefit-men, therefore, so much as members of the family, or, more accurately still, boarders. The regular hands sleep in the farmhouse and their lodging and food is reckoned in their wages. The lodging of four in one bare room with mattresses on benches. The food is not less hard; meat is almost unknown, though two-year-old pork—kept and salted for this very purpose—finds its way sometimes into the soup. For the rest, bread and cheese and milk and dumpling. The farmer does not afford his men coffee, like the proprietor; on the other hand, he has more fellow-feeling with them in the matter of schnapps and beer; a glass of schnapps is put out for each man, with his bread and cheese, at what in England would be tea-time; great jugs of home-brewed stand ready, continually replenished, in the harvest field. The farmer's own fare is little less hard—but less hard it is, and the point is carefully insisted on. The family's own pork is not young, but it is younger than the men's; the family gets coffee where the men must be content with skilly; there is a difference of quality even in the black bread. Thus simply and practically are social distinctions kept ever before the eyes.

The next proprietor is tall, as straight as the lances of his old regiment, as light and lean as when he rode through France, a lieutenant of nineteen. The gentlemen of this generation owe much to France besides glory and the practical knowledge of war. If the charges of Mars-la-Tour and the trenches before Paris hardened them from boys to make men at twenty, the off-days of campaigning widened them from rustics to men of the world. They might try their Heidelberg Latin on learned *abbes*, but for the most part had to perfect their French as the price of many a night's comparative comfort. What they had gained, like true Germans, they kept and economized and improved upon. So that this country squire, living year in and year out on his little estate, in whose family a visit to the provincial capital is a pilgrimage calling for weeks of packing and furnishing matter for months of reminiscence, would be at home in any club of Europe. He keeps up with French politics and French literature; he once visited England—to buy horses; why else?—and, still with the wise German economy, saw enough of Aldershot and Newmarket, the Shires and the Agricultural Hall, to equip him with an abiding interest in English life and with English side-lights turned to profit upon his own. German courtesy is per-

haps punctilious rather than effusive; only when you are received by a gentleman of this school you will observe that, while he would at all times extend hospitality to a stranger as a duty, his well-husbanded experience touches duty with keen pleasure.

He drives over to call on you behind a pair of seventeen-hand bays, stepping high, not as a mechanical exercise, but in the pride of their power and courage. He shows them off to you up and down the drives and in and out of the flower-beds, holding the reins in German fashion, one in each hand, but playing on their mouths with the sure, modulated touch of the artist. It would puzzle most other eyes than his own to tell one from the other, and it would be a handsome present to sell them for four hundred guineas. He has been breaking them through the summer, and nobody else ever drew a rein on them; but he has three other pairs as well broken in the stable, besides Hungarian *juckers*—troublesome to drive, he simply explains, for short distances under twenty miles—and the English thoroughbred he rides. Besides these there are a dozen brood mares and their foals on his meadows, with yearlings and two-year-olds that are to be broken next season. Beasts, too, that have fattened themselves on the rich, close, holding pasture, and are ready to sell to Hamburg before they have seen corn or cake in their lives. This gentleman is the type of agriculturist who is moderately depressed—who is not?—but not discontented. He sees why prices sink, and sees that they must sink; without yapping at the Ministry of Agriculture, he abandons what he can not do and goes about to do what he can do better. So, having an eye for a beast and a hand for a horse, and an inexhaustible patience and an unwearied industry, he goes purposely on. "I never know half the horses in my father's stable," says his son, home on leave from the old Uhlans. "They change every week; one does not recognize the poor or the vicious ones after a fortnight; he makes much money thereby." This estate, in short, pays entirely by the knowledge and skill of the horse-dealer, its proprietor; but is it less dignified so?

Thus may you wander on over the flat acres of Germany, which nobody visits, and find everywhere the same life. Everywhere you will find the gentleman farming his own land; the same clean-skinned, simple-hearted, hard-headed, plain-living, high-mannered lord; the same peasantry, penurious, but secure of livelihood, living hard, but scarce as yet taught to resent hardship. These conditions reflect their natural influence on the methods and status of German agriculture, as well as on German social ethics. For the methods, they are not surprisingly good, and could hardly be asked to be. To follow the soil is not so much of a profession as a life. You do not choose it because you feel an impulse toward it; you are born to it, because it is the natural destiny of the gentleman as of the peasant. That is so to some small extent in England, or Scotland, or Ireland, but the extent is relatively very small. Where a gentleman is unmistakably labeled by a "von" before his name, the traditions enjoining what pursuits are or are not fit for

gentlemen must needs be longer of breaking down than where a duke's grandson bears the same style as the ploughman's. Where, till quite lately, communication has been difficult, industries few, and the police unfavorable to migration, the laborer also must needs be slower to realize that he is no longer legally tied to his native village. This being so, you would expect to find German agriculture in a respectable middle state of proficiency, not stimulated by any extraordinary aptitude or energy, though pursued with method, industry and conscience. Just so you find it. Machinery is gaining ground inevitably, but not so swiftly as you would expect in a land where farmers are men of education and capital. Tradition steps in before it, and whispers that perhaps after all the basket-fitted scythe suits the gradients of the field better, that the creamery with its separator is too far away. Collection and distribution appear less organized than in Denmark or France; you get so little for an egg, whispers tradition; is it really worth while to set up depots and traveling carts to collect them? The old manure and the old stock do well enough; why trouble to experiment, and import, and cross, in hope of improving them?

This is not, of course, the universal voice, but it is perhaps a fair reading of the general chorus. And when competitors arise and prices tumble and markets are closed, there makes itself felt a second influence of the conditions of German country life. Agriculture is a social as well as an economic element, almost a political party of itself. Nowhere else is it in a position to put such pressure on the government; nowhere else, by consequence, is it so loud and insistent in demanding help from the government in every difficulty. Agriculture falls readily into State pauperism everywhere, and in Germany every interest is prone to believe that State pauperism is the one seemly attitude for a suffering industry. Take these two characteristics together, add exceptional social influence, cohesion and power, and you can understand the attitude of German agriculture toward the State. The energy and persistence with which it attempts to dictate measures frankly conceived in its own sole interest, and often directly opposed to the interest of every other class, has no parallel in the world. This is not the place to go into the history of the German agrarian movement, which took its definite shape under Count Caprivi's Chancellorship, and is as sharp a thorn in his successor's side to-day. How little it need be regarded as a serious political or economic factor can be seen readily from only one or two of its ambitions; it has been seriously proposed that government should fix and maintain a price for corn, or that the importation of corn should be prohibited altogether for six months in the year. During these months the squire would have disposed of his crops to his own great satisfaction, but it would mean semi-starvation for the German workman, who cuts it fine enough already. About that, the agrarian party troubles its head not one moment. The story of the sugar bounties, where agriculture did succeed in enforcing its pocket interest as

a public policy, is even better known. It may have ruined the British West Indies, but it supplies the British artisan's wife with as much excellent sugar as she likes at 1d. a pound—though, to be sure, a more expensive, sweeter sugar comes cheaper in the end. On the other side, it may have made the German sugar industry; but as the bounty is paid on export only, the German artisan's wife pays at least 3d., out of lower wages, for the lowest quality of sugar. So long as it got its bounty and its good prices, German agriculture cared for this not a jot. But an artificially manufactured industry can be artificially destroyed, and that the beet grower has found. Higher bounties in other countries, and the issue of an election in the United States, have brought the whole industry down again to the verge of beggary.

Is the agrarian, therefore, beaten out of his heresies? You do not know the German agrarian if you expect it. Obstinacy is the root of his whole character, and he only knocks the louder at the doors of the Ministry of Agriculture, and asks why France and Belgium are allowed to double the German bounty. In truth, the factious, selfish, fundamentally unpatriotic policy of German agriculture is an ugly enough reverse to the medal of Cincinnati at the plow. The farming aristocracy claims a kind of divine right analogous to the outspoken pretensions of its Emperor. They are the nobles; they are the officers; they stand for the land, the support of dynasties and the nursery of armies. On the strength of all this they demand special consideration, at whatever cost to other elements, from the country to whose welfare they hold themselves essential. Essential no doubt they are. But it must be said that the advance in German prosperity during the last generation has not been in their province, nor are they to be looked to for the continuance and development of it. Germany's peaceful triumphs have been in manufacture and trade. Germany is transforming herself from an agricultural into an industrial country, almost as fast as did Britain in the '30s.

And that is the reflection that lies always in the mind as you ride over the miles of fields or seek the certain welcome behind the ramparts of trees. How long will it last? It is good for the nobility, this half-feudal, half-patriarchal life; it is far from wholly bad for the peasant; it need not, with larger views of national interest, be anything but a blessing, a political, social and moral anchor for the whole country. Only, how long will it last? The truth is that it is doomed already. The fate of rural England is already settling over Germany—the depopulation of the villages. Walking with the proprietor among the stooks, you meet a dumpy, bowed, hairy man, and a not less brutish-looking woman, who to his greeting return only an inarticulate grunt. They are Russians, hired for the harvest season, because German labor is not to be had. Throughout Germany, west of the Elbe, there is a trade in Russian and Polish labor. This labor steals over the Russian frontier and makes its way to Breslau, the great mart of the trade. There it

sells itself to contractors, who sell it in bulk, put on the rail on payment of carriage to anybody who is short of hands for the harvest. They talk no word of German beyond *Ja* and *Nein*. Each drove has its foreman; the drove is given a location, and there in bare huts men, women and children pig together. Their life seems hardly enviable even in good weather, but it appears to be to their liking. For they seldom return to Russia—where, indeed, the authorities would not welcome them with cordiality—but remain to be bearers of burdens in Germany. The German bearer of burdens is off to the mills in the big town whose smoke hangs yonder behind the hill.

The old simple life is doomed. Prices and wages fall in the country as they rise in the centres of industrialism. Germany grows richer, but German agriculturists grow poorer; "wealth accumulates and men decay." The country, from a variety of causes, will probably take longer in the killing than it has done with us. The landlord-farmer saves one man's profit which British agriculture is called on to find; so long as he remains, the land is at least unburdened by rent. The laborer-boarder cuts off one source of outgoing; so long as he remains it is at least cheaper to feed ten mouths from one dish than from ten. The political influence of agriculture may bolster up prices awhile. But depopulation must come in the end; it is arriving already. The nobility will not be content forever to remain poorer than their social inferiors. As yet there are few great fortunes, though many small ones, in the world of German industry; but when they come, the nobility will probably find even a "von" small compensation for the prohibition to share them. Berlin is already one of the most brilliant of European capitals, and the officers of its garrison will be increasingly loath to say good-bye to its amenities. The more they incline to let their land and live on rent, the less rent there can be to live on. At the other end of the scale the laborer will become less docile as the emissaries of Social Democracy hawk their pamphlets from hut to hut; he will strike out for a life of more risk and more freedom and enjoyment—the life of the factory, the trade-union and the beer shop. The agrarian policy may overreach itself, and end by sickening the government of its factious paupers altogether. Nobles and commons will surely drain away to the towns, and leave the poor land drop back to endless heath again.

What consequences the change will work on the whole system of Germany it staggers the imagination to predict. It is enough to see that the logical outcome of an industrial Germany—nobility impoverished or industrialized, middle class enriched, operatives swelling in numbers and perfecting the already developing trade organizations—is very different from the step-fatherly despotism which is the present ideal of its rulers. Meantime, as we sit and smoke Hamburg cigars in the gathering night, we may be pardoned for looking sentimentally at the heads of unnumbered roebuck on the walls, at the fox-skin which the squire—O horror!—shot from his study window as it sniffed after the

fowls, at his wife in her cotton housewife's gown, at the bailiff and his apprentice coming into supper with the family, and the weary, contented laborers following in the maid-servant who carries the sour cream and black bread to their quarters. The next generation may see none of these.—G. W. Stevens, in *Blackwood's Magazine*.

Boilers for Steamships.

In all well-ordered ship building the construction of the boilers begins with the laying of the keel. In no department of ship building are skill and experience of more vital importance than in the boiler shops; for the boilers are to the steamship what the heart is to the human body, and upon the proper discharge of their functions depends the whole efficiency of the structure. There is, doubtless, wider difference in quality of boiler work and in consequent performance between different establishments than in any other branch of the art. Some shops turn out boilers which begin with first-class performance on the preliminary trial trip and maintain that standing throughout their period of duration; others begin with leaky tubes, sprung tube sheets and bad joints, and continue an unsatisfactory career until they land in the scrap heap at a time when a good boiler would be at its best.

Slovenly work on a ship's hull may be remedied by thorough repair. Even imperfect construction or defective adjustment of the working parts of an engine may be corrected. But there is no salvation for a botched boiler, because one defect always breeds another. Steam at 160 pounds square-inch pressure is an agent that will tolerate no trifling, and, hence, unless the boiler is perfect at the start in every detail, the cheapest disposition that can be made of it is to break it up and put in a new one that is perfect.

The boiler in most common use for sea-going ships is of the cylindrical, fire tube type, with inside furnaces, and is usually termed the Scotch boiler. Other types are used, such as the "through and through," or locomotive boiler, and the water coil or tubulous type, of which there are many kinds. The essential difference is that in the cylindrical and locomotive types the fire goes through the tubes, which are immersed in water, while in the coil type the water is forced through tubes surrounded by fire.

The great amount of water required in the Scotch boiler is rapidly bringing about a more extended use of the water tubular kind. The earlier water-tube boilers did not have enough water to act as a heat reservoir, but the necessity for more water to insure uniformity of pressure is being recognized, and it is very probable that the coming boiler will be a tubular boiler with enough water in some large tube or tank to act as a water and steam reserve.—Louis Nixon, in *Cassier's Magazine* for March.

Mt. Nebo (Utah) Sugar Factory.

It was made known on Thursday that the promoters of the project looking to a big sugar factory at Mt. Nebo had succeeded in interest-

ing Edward Roberts, of Boston, and that he had consented to undertake the floating of bonds to the amount of \$800,000 among investors in the East. The bonds cover a period of twenty years, and draw 5 per cent. Mr. Edwards, who was interviewed with reference to the matter, confessed that he entered into the agreement with Mr. Cutler and his associates looking to the placing of securities, and that he would press the work as vigorously as possible.

With the project itself he is more than favorably impressed, and said that were it not for unsettled conditions consequent upon the war, he would feel that everything could be put through with very little effort. However, the prize is one that should be benefited by war, as war means a curtailment of the output of sugar, and securities based on that article should find ready market. At all events he will go East, believing that capital will see it as he does.—*Salt Lake Tribune*.

Trade Notes.

Steam Economizers.—THE LOUISIANA PLANTER has received from the Lunkenheimer Company of Cincinnati, Ohio, its new 1898 catalogue of valves, injectors, whistles, lubricators, file and grease cup and other steam economizing specialties. It is a handsomely bound book of over two hundred pages, and will be sent free to our planters, engineers or manufacturers interested by addressing the Lunkenheimer Company, Cincinnati. It will do an engineer good to look over the series of lubricators, oil and grease cups, by means of which an oil economy of 75 per cent. has been realized in at least one Louisiana sugar house. Every kind of a valve, steam whistle, gauge and other cocks, water and steam gauges, water and steam brass fittings is offered. Write for the catalogue.

Double Effect.—Messrs. Payne & Joubert, the well-known machinery men of this city, advertise for sale elsewhere in this issue a 60,000 gallon standard double effect, strictly modern and nearly new. They say the apparatus is offered for sale simply to make room for one of larger capacity, and any one desiring something of the kind would do well to investigate this. An investment of this kind should save half of the amount invested in the reduced cost of fuel the first season.

Lidgerwood Hoisting Engines.—Mr. J. H. Dickinson, the well known engineer with Messrs. Woodward, Wight & Co., who are the New Orleans agents of the Lidgerwood Manufacturing Company, which advertises its cane hoists in this journal, tells us that his company has just supplied ammunition hoists for the war ships Yosemite and Dixie, being fitted out at Newport News as auxiliary cruisers. Within nine days from the receipt of the order the Lidgerwood Company furnished ten complete hoists, comprising double cylinder engines, cages, guides, sheaves and all the necessary paraphernalia. Mr. Dickinson cites this as a sample for what he can do for the sugar planters of Louisiana in the way of cane hoists

for the coming crop and asks for correspondence relative thereto to be addressed to Woodward, Wight & Co., New Orleans.

Pasteur's Vaccine for Charbon.—The Pasteur Vaccine Company, whose advertisement will be found in this journal, desire to call the attention of the sugar planters of Louisiana to their preventive remedy for charbon, which frequently is so destructive in Louisiana. They have recently issued a circular which records the remarkable success of the black leg vaccine which has been largely used on cattle in Missouri, Nebraska, Kansas, Colorado, California, Oklahoma, South Dakota, Wyoming and Texas, with extraordinary results in the protection of the vaccinated cattle. The experience of recent years on the Gulf States indicates that horses and mules can in a like manner be rendered immune by the use of Pasteur's vaccine for charbon. The Pasteur Vaccine Company, 54 Fifth Avenue, Chicago, may be addressed for particulars, and the vaccine may also be had from Messrs. I. L. Lyons & Co., New Orleans.

Insurance that Insures.

The Hon. H. C. Minor, of Houma, La., whose recent death was so widely mourned in Louisiana, had two policies in the Mutual Life Insurance Company of New York, one for \$12,000 and one for \$35,000. The latter policy was on the return premium plan. The full value of his two policies was \$47,000 and they netted his estate \$59,537. The prompt payment of this claim by the Mutual Life, and the splendid results of the investment made by Mr. Minor has attracted the attention of New Orleans merchants to the merits and plans of the Mutual Life Insurance of New York. Business men realize that life insurance is not only a protection for the family, but a splendid investment for the estate, especially when the policies are written in the Mutual Life, the largest life company in the world; a company owned by its policy-holders and run in their interest by men of signal ability and long experience. Messrs. Post & Bowles, managers in this city for the States of Louisiana and Mississippi, will take pleasure in explaining the excellent plans now offered by the Mutual Life of New York.—*New Orleans Insurance Agent, May, 1898.*

Col. G. G. Zenor, of the Riverside plantation, near Pattersonville, was in town during the past week for the purpose of attending the regular monthly meeting of the Louisiana Sugar Planters' Association. The colonel is a regular attendant at these meetings, an example some of his confrères could not do better than to imitate.

Mr. J. E. Munson held his usual position as field manager on Col. L. S. Clark's Lagonda plantation during the past campaign, and maintained his reputation as a splendid field marshal. Col. A. J. Sypher had charge of the engineering department, assisted in an able manner by Mr. Henry Boudreaux, while Mr. Jules Luddecka handled the vacuum pan. Under such favorable auspices Lagonda could not fail to obtain magnificent results.

MAY 14.

WEEKLY MARKET REPORT.

1898.

SUGAR.	May 7.	May 9.	May 10.	May 11.	May 12.	May 13.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	
Strict Prime	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	27 1/2 @ 2 1/2	
Prime	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	28 1/2 @ 2 1/2	
Fully Fair	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	29 1/2 @ 2 1/2	
Good Fair	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	30 1/2 @ 2 1/2	
Fair	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	31 1/2 @ 2 1/2	Strong.
Good Common	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	32 1/2 @ 2 1/2	
Common	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	8 3/4 @ 3 1/2	33 1/2 @ 2 1/2	
Inferior	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	2 3/4 @ 3 1/2	
Centrifugal.								
Plant'n Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Off White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Steady.
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Prime Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Good Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Seconds	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 4	2 3/4 @ 4	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ —	
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ —	
Strict Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 9	
Good Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 8	
Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 7	
Good Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 6	Steady
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 5	
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4	
Inferior	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	5.15 @ —	5.15 @ —	5.08 @ —	5.08 @ —	5.08 @ —	5.09 @ —	4.28 @ —	Quiet.
Standard A.	5.08 @ —	5.08 @ —	5.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.16 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	12s. 0d.	12s. 0d.	12s. 0d.	12s. 01.	12s. 0d.	12s. 8d.	10s. 6d.	Firmer.
A. & G. Beet	9s. 8 1/2 d.	9s. 8d.	9s. 8 1/2 d.	9s. 8 1/2 d.	9s. 4 1/2 d.	9s. 5 1/2 d.	8s. 10 1/2 d.	Firm.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Standard Granula'd	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5.44	— @ 4 1/2	Strong.
Candy A.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C.	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5.82	— @ 4 1/2	
Crystal Extra C.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to	Apr. 27	Tons	845,817
At four ports of Great Britain to	Apr. 28	"	77,500
At Havana and Matanzas to	Apr. 27	"	86,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAY 13, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	181	11,956
Sold	181	14,500

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO MAY 13, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	22,612	1,428,069
Sold	22,612	1,408,787
Received same time last year	31,916	1,281,932

MAY 14.

WEEKLY MARKET REPORT.

1898.

RICE.	May 7.	May 9.	May 10.	May 11.	May 12.	May 13.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	2 25@5 85	2 25@5 85	2 25@5 85	2 25@5 85	2 25@5 85	2 25@5 85	— @ —	Strong.
CLEAN, Fancy.....	6 1/4@6 1/4	6 1/4@6 1/4	6 1/4@6 1/4	6 1/4@6 1/4	6 1/4@6 1/4	6 1/4@6 1/4	5 1/4@6	
Choice.....	5 1/4@6	5 1/4@6	5 1/4@6	5 1/4@6	5 1/4@6	5 1/4@6	5 1/4@5 1/2	Very firm.
Prime.....	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	4 1/4@5	
Good.....	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	5 1/4@5 1/2	4 1/4@4 1/2	
Fair.....	5 @5 1/4	5 @5 1/4	5 @5 1/4	5 @5 1/4	5 @5 1/4	5 @5 1/4	4 @4 1/4	
Ordinary.....	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	3 1/2@3 1/2	
Common.....	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	4 1/4@4 1/2	— @ —	Nominal.
Inferior.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
No. 2.....	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	2 @2 1/4	
BEAN, $\frac{1}{2}$ ton.....	12 00@—	12 50@18 00	12 50@18 00	12 50@18 00	12 50@18 00	12 50@18 00	12 00@—	
POLISH, $\frac{1}{2}$ ton.....	16 00@—	16 00@—	16 00@—	16 00@—	16 00@—	16 00@—	17 00@18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAY 13, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received.....	573	226
Sold.....	851	2,019

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO MAY
13, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	465,138	8,070
Last year.....	876,757	9,288

Sugar.

The local sugar market was steady at the end of the week, and a fair amount of business was reported. Arrivals were very good for this season.

Molasses.

No open kettle goods in first hands. Centrifugals steady.

Rice.

Receipts of rough rice were small at the end of the week, and offerings were very restricted. Everything that came in the market was promptly taken at full prices. Clean was firm, with offerings moderate.

Lower Burmah Rice Crop Prospects.

THE LOUISIANA PLANTER has received its Calcutta advices up to April 7, in which a report is made on the rice crop prospects in lower Burmah. A slight increase in acreage is reported, and the estimate of the exportable surplus is placed at 1,636,000 long tons of cleaned rice. There was a good demand for rice, and prices were advancing.

The Rice Market.

It would seem as though "top notch" had at last been reached in the rice market, at least so far as the volume of business is concerned. The movement of the week by a peculiar coincidence was an almost exact duplicate of its predecessor. As heretofore, all desirable grades find ready sales long before arrival, and as natural under such conditions, sellers keep their former place of vantage. This season the tardy operator has gotten illy rewarded for his patient waiting, having continually to pay more and sometimes not getting goods until after protracted delay. The "spot stock" is entirely composed of lower grades and

being of rather abundant quality, values have not until now responded in any wise to the radical changes so constantly occurring in the better sorts. This week, however, a greatly enlarged call has caused a tightening up of prices and further advances are predicted, as they are still $\frac{1}{4}$ cent below importing cost. This relative cheapness in comparison with prices abroad also holds true in degree on all styles, hence outlook indicates further improvement. Advices from the South note a greatly shrunken demand in the home product, as the crop is practically closed out and the main dependence from now on until new crop must be on the foreign sorts. Cables and correspondence from abroad note continuance of former active conditions, with hardening tendency under shortened supply. As previously intimated the time may come when Europe will, by reason of increased tonnage facilities from the East, secure its requirements and some easing of values, but such outcome will be long deferred and is of little interest, as by that time the new crop of the United States will have been reached.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 59,250 barrels. Sales, 58,720 barrels. Steady featureless demand, mainly foreign.

Talmage, New Orleans, telegraphs Louisiana crop movement to date: Receipts, rough, inclusive of amount carried over, 537,065 sacks; last year, 568,036 sacks. Sales, cleaned, estimated, 120,495 barrels; last year, 106,020 barrels. Good local demand at hardening values; principal outside business is on foreign.

The Japanese Rice Market.

M. Raspe & Co.'s rice report, dated Kobe, April 6, 1898, says: Our last was dated March 1.

The tone of our rice markets in the meantime has remained very excited. It is now said that the actual shortage of our last rice crop is considerably larger than estimated by the government in their official statements, and considering the continued small supplies from the interior we are inclined to believe the official figures to be far out.

After a short period of quietness about a week ago a further sharp rush has set in, prices for No. 1 brown rice advancing rapidly

from yen 6.50 per picul to yen 6.70 and yen 7.00, and closing at yen 7.40 per picul, equal to 18s. 3d. f. o. b.

Under these circumstances, of course, a very limited export business only has been done, amounting to some small transactions for New York, Australia and Hamburg on the basis of yen 6.60 to yen 6.70 per picul, which, after all, caused a serious loss to the Japanese contractors.

The Tokio Rice Exchange, following the example of the Osaka Exchange, has been closed in consequence of differences having arisen between the brokers, which, however, it is believed, may be shortly overcome. The government are doing their best to put a stop to the reckless gambling in future dealings, but so far without noticeable success.

Import rice—The large arrivals from Rangoon, Saigon, Singapore and Hong Kong are finding a ready market, and go off promptly into the interior. In spite of this the market, about a fortnight ago, showed signs of a lull, the Japanese not being inclined to pay the advanced prices asked from Saigon, Bangkok, Rangoon, etc., and withholding from fresh undertakings.

But when the news reached Hong Kong that the Chinese government had prohibited the export of rice from fear of a famine at Canton the tone of our rice markets again became more lively, and a good business has been done in Siam and Rangoon rice, and, to a smaller extent, also in Saigon, for April-May shipment.

For more distant shipment there is no inclination at present, and it will mainly depend on the outcome of this year's wheat crop whether and to what extent further rice will have to be imported. So far the weather has been favorable, and the prospects for the new wheat crop are good. But nothing definite can be ascertained before May or June.

Freights—To Europe are unchanged, to New York 30s. had to be paid.—Pcayune.

Capt. Geo. E. Mann, of the Lower Coast, was in the city during the past few days. Captain Mann attended the meeting of the Louisiana Sugar Planters' Association on Thursday night.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION AS SUGAR HOUSE engineer, for construction, repairs and general work. Satisfactory references as to ability and character. Address A. S. ARMSTRONG, 1026 Jena street, New Orleans. 5-10-98.

WANTED—A POSITION AS RAILROAD trackman on some plantation. Address E., St. Bernard P. O., La. 5-10-98.

WANTED—POSITION AS WEIGHER OR SIM- ilar for coming season, by experienced man of 35; first-class recommendation; well posted on general office work; also open for any kind of employment at once. Address E., care L. Schuster, merchant, Hohen Solms P. O., Ascension parish, La. 5-10-98.

WANTED—A POSITION BY A FIRST-CLASS sugar-house and refinery engineer to do repairs and take off crop; has fifteen years' experience. Address D. W. B., No. 720 Valmont street, New Orleans, La. 5-3-98.

WANTED—BY A FIRST-CLASS MACHINIST and engineer, fifteen years' experience in refineries and sugar houses; can give first-class reference. Address HENRY WESTON, 740 Poydras street, New Orleans, La. 4-26-98.

WANTED—BY A FIRST-CLASS OPEN KET- tie, open pan and vacuum pan sugar maker, a position for this coming grinding season; best of references can be given. Apply to FELIX SERPASSE, St. Bernard P. O., La. 4-27-98.

WANTED—POSITION ON A PLANTATION AS assistant manager, time or book-keeper; could take charge of a stable; I am a married man, 30 years old; have good references as to habits and capability; all letters will receive prompt attention. Address WILLIAM DETTRICH, Hammond, La. 4-23-98.

WANTED—A POSITION WITH A LARGE firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98.

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address SUGAR MAKER, care this office 4-16-98.

WANTED—A POSITION AS CLERK OR AS- sistant overseer, on sugar plantation; can give best of references as to ability and character. Address 500, care PLANTER.

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98.

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommends the best in the State. Address J. FRANZ, Eureka, St. Louis county, Mo. 4-6-98.

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milkier. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98.

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. R. C., 1319 Magazine Street, New Orleans, La. 4-4-98.

WANTED—A POSITION AS GOVERNESS IN the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98.

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98.

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4736 Tchoupitoulas street. 3-29-98.

WANTED—A CARPENTER, WITH LARGE EX- perience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98.

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98.

WANTED—SUGAR EXPERT, 25 YEARS' EX- perience in beet sugar and five in cane factories; desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98.

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98.

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98.

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Painscourtville, La. 3-18-98.

WANTED—A POSITION AS CHIEF ENGI- neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98.

WANTED—SUGAR CHEMIST DESIRES PO- sition at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98.

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98.

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98.

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98.

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98.

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98.

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address H. G. Hill, Ponchatoula, La. 3-26-98.

WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assistant boiler in some large factory. Best of references given. W. B., Box 62, Donaldsonville, La. 3-31-98.

WANTED—EMPLOYMENT AS COPPERSMITH and sheet iron worker in country for repairs or new work in refinery or sugar house; long experience and good references given; easy terms. Address T. D., 1129 Orange street, New Orleans. 2-15-97.

WANTED—A POSITION IN A PRIVATE family as a general yard man, city or country. Address PETER SANDERS, 130 North Franklin street, New Orleans. 2-10-98.

WANTED—POSITION BY COMPETENT druggist, five years' experience, or clerk in merchandise store; single; no bad habits; best of references. Address AMMONIA, P. O. Box 57, Jackson, La. 2-10-98.

WANTED—TWO YOUNG MEN, HAVING HAD considerable practical experience and thoroughly competent to handle the chemical work of a beet sugar house, desire positions for coming campaign; the best of references on application. Address "CRYSTALS," care PLANTER. 2-5-98.

WANTED—A POSITION AS ELECTRICIAN on a plantation; has had many years' experience; can furnish good references. Address F. SINTES, 2435 Chartres street. 2-5-98.

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Five Double Flue Boilers in good order, with steam and mud drums and breaching; 26 feet long. 36 inches diameter, with two 13 inch flues. Never been used with coal. Address,

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NEW ORLEANS.

THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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No. 21.

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AND

SUGAR MANUFACTURER,

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Texas Sugar Planters' Association.

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Lavas and Soils of the Hawaiian Islands.

The last mail from the Hawaiian Islands brought to us a handsomely printed and bound volume of nearly 200 pages on the *Lavas and Soils of the Hawaiian Islands*, by Dr. Walter Maxwell, Director and Chief Chemist of the Hawaiian Experiment Station, and covering the investigations into the subject matter made by Dr. Maxwell and his assistants during the last few years. The book is printed and published in Honolulu, by the Hawaiian Gazette Company and is a most creditable production.

Dr. Maxwell discusses the nature and origin of Hawaiian soils; the Hawaiian lavas and rocks; their disintegration; the primary effects of chemical action on lavas; laterites, their occurrence and origin; Hawaiian soils, upland and lowland; the relative fertility of the several types of soils; the availability and loss of the elements of plant food in Hawaiian soils by water and by cropping, and a final summary of the subject matter, the whole being an exhaustive consideration of the subject such as only a competent scientist such as Dr. Maxwell, would be capable of writing.

The soils of the Hawaiian Islands are derived from volcanic lavas, and climatic influences have been the chief cause of the decomposition of the lavas and their soil formation. Dr. Maxwell believes that the soils of these islands are quite different from the soils of the United States, and that relatively speaking the soils of these islands are in their youth, and the soils of the United States and Europe in a state of old age. The wonderful development of the sugar industry in the Hawaiian Islands, so far exceeding the most sanguine expectations of its promoters in 1875, gives evidence of the great fertility of the tillable lands, thus far water alone having been the essential factor in the great development that has occurred in the culture

of the sugar cane. Dr. Maxwell believes in a rational system of fertilization based upon the data derived from the extensive and thorough studies cited in the volume before us. The book is handsomely illustrated, with several volcanic views, the text showing the close relation that has obtained between the volcanoes and the cultivable soils of the islands.

The Louisiana Cane Crop.

Continued dry weather is giving rise to loud complaint in almost all sections of the sugar district, but the ability of the cane to recuperate from the effects of drought has been so often demonstrated that serious apprehensions of disaster are not yet entertained. The soil is being carefully stirred as much as possible and everything is being done to enable the young canes to hold out with a minimum of suffering until the advent of rain, and to put them in the best shape for reaping the full benefit of the showers when they arrive. The efforts of the growing plants to seek the moisture in the subsoil is fostering root development, and the improvement when rain falls will be marked and immediate.

Mr. R. E. Lee Todd, at one time with the Calumet place of Mr. Wibray J. Thompson, on Bayou Teche, is now the manager of the Crawford plantation, St. Mary parish, and it is reported that he brings out of the soil of Crawford some of the finest sugar cane in the State.

Mr. John Paul Baldwin, sugar planter, inventor and a gentleman of considerable renown on account of his many genial qualities, left on the N. O. & N. E. R. R. last Monday evening for his summer home in Berea, Ohio. He was accompanied by Mrs. Baldwin.

Mr. J. M. McBride, of Terrebonne parish, has been absent for a few days in Alabama and Mississippi. Mr. McBride passed through the city last Thursday en route home. At the Grand Cote plantation of Mr. G. L. Hall, Mr. L. Brown was manager during the past campaign, and Mr. W. H. Riggs, the well-known sugar boiler of Jeanerette, La., had charge of the vacuum pan.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: The dry spell still continues, and the note of complaint issuing from the clarion throats of planters, managers, overseers and field hands grows louder and louder, portending either the disaster to the agricultural interests of this section or an exceptionally fine reward for the year's labors. *Quien sabe?* It is a well-known matter of fact, supported by abundant precedent, that reports of the utter and absolute destruction of the fruit crop of New Jersey and Delaware by late frosts and freezes are almost invariably the precursors of universally fine yields of the succulent peaches, pears and apples, for which that section of our great country is particularly noted. By the same token it frequently happens that the seasons which seem at the outset the most unpropitious in our glorious sugar-producing region prove to be especially fruitful, favorable and prosperous in their outcome.

Reports are heard from every hand to the effect that cane is dying in the fields for lack of moisture. A well-known manager remarked in the presence of your correspondent this morning that never before in his experience had he seen cane absolutely perishing because of want of rain; but experience teaches us that our staple plant is a hardy one, which often recuperates from the most trying and seemingly hopeless conditions. We can but trust that history will in this respect repeat itself, and that the old rule of "a dry season and a big sugar crop" will be exemplified anew by our experience of 1898.

The maximum temperature during the past week has been 92 deg., the minimum 70, and the river has declined from 28 feet above low water mark to 24.7 feet above that point. Local Observer Park reports this morning that the river is falling very slowly and the rainfall is "out of sight."

Under the circumstances plantation news is almost an unknown quantity, but in this instance it can not be said that "no news is good news," since the kind mostly now to be desired is the chronicle of copious precipitation of moisture to lay the dust, replenish drinking water receptacles and impart renewed life and vigor to the drooping crops. Almost daily indications of this blessing are given us, but they "keep the word of promise to the ear to break it to the hope."

I said last week that unless something unforeseen prevented, you should hear more of the planters' dinner and ball in to-day's letter, but the unexpected has happened in the shape of the eighteenth annual session of the Grand Lodge Knights of Pythias of Louisiana, which was held at Donaldsonville on Monday, Tuesday and Wednesday of the current week. Having been very closely identified with the pleasant labor of receiving and entertaining the members of that body, your correspondent is again compelled to throw himself upon the mercy of THE PLANTER and its readers, and to ask that present shortcomings be excused in the weekly contribution from ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: Excepting a small shower on Bayou Plaquemine, Friday, the 13th inst., barely sufficient to lay the dust, no rain has fallen in the parish for more than a month, and some parts of the parish have had none for nearly sixty days. With cool nights and dry windy days the crops have grown very little. The ground, however, is being constantly stirred and everything is in good shape to reap much benefit from the rain when it does come.

Some big improvements are in progress at the St. Louis sugar house of the Edward J. Gay Planting and Manufacturing Company, Limited, while the fields are not being neglected, and in the matter of drainage no expense is being spared. The Tennessee addition to St. Louis has been thoroughly ditched and two immense canals, one being thirty feet in width, have been dug to carry the water back into the swamp. The corn is being laid by and one and one-fourth bushels of pease to the acre planted in it. The improvements in the sugar house consist mainly of a new mill, which will be put in by the Birmingham people. It will be a double mill with rollers seven feet long and thirty-four inches in diameter, with a large crusher in front. This is the largest mill the Birmingham company has ever tackled. Deming's process of superheat clarification with a daily capacity of 200,000 gallons will be installed, and the capacity of the Lillie triple effect will be increased from 100,000 to 200,000 gallons per twenty-four hours. All the old clarifiers at St. Louis have been taken out; the sugar house structure has been widened twenty-five feet more, and the better part of the machinery will be arranged on one floor. Messrs. Gibbens and Stream, popular machinery men of New Orleans, have charge of construction. When completed St. Louis will have one of the biggest and best sugar houses in the State, with a daily capacity for handling 1500 tons of cane. St. Louis has its own saw-mill, which is kept running steadily to supply the large amount of lumber required, and the output of a pretty good-sized brickyard is needed, for in the foundation alone 300,000 bricks will be used. Hon. Andrew H. Gay is the president of this progressive company, and in its management he is ably assisted by Mr. Andrew H. Gay, Jr.

At Allemania, the fine property of the John Reuss Planting Company, Limited, they are fixing to enlarge their mill room; they have taken out their old mills, and are waiting for Mr. M. L. Flowers to start the foundation for the new mill from the Fulton Iron Works. The old Rillieux effects from Belle Helene, with a capacity of 6000 gallons, will be installed, and the capacity of their vacuum pan augmented 2000 pounds by the addition of a 2-foot ring. The work of improvement is under the direction of Messrs. Wehrman and Corne, and when completed Allemania's house is expected to handle about 400 tons each day. Manager J. A. Lorio has his field in fine shape. He is applying 400 pounds of meal to his plant cane.

His front stubbles are the best we have seen anywhere. Rain is badly needed here, as elsewhere, and we were shown some plant cane that had been worked and the middles broken out three times since the last rain.

IBERVILLE.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: The somewhat prolonged absence of rainfall, is a source of anxiety to those who are engaged in agriculture, whether on a small or large scale, and all are hoping for seasonable showers to saturate the upper stratum of earth; but not a prolonged wet spell or flooding precipitation. With adequate moisture and the present temperature, crops would grow apace, also extraneous vegetation, particularly when the soil has not been sufficiently stirred. With the implements to be had, crops should not suffer from dry weather as in former years—fields can now be cultivated oftener and much more effectively. The drought of 1870 was more prolonged than any experienced in the past thirty years—it lasted from the beginning of March until about the 20th of June. To show the hardness of stubble, the writer had a field which remained on the bar until after the above date, which was laid by as soon after the rain as circumstances would permit, and at harvest time the canes yielded 1¾ hogsheads of sugar per acre, without fertilizer, other than what the plant cane left from the pea vine crop grown prior to planting in cane.

The cane fields, although not as green as might be desired, present a better appearance than they would had planters been compelled to neglect their crops from an excess of rainfall.

Generally the canes are not as tall at present as they promised a month ago, due to the absence of sufficient moisture, but still more to the absence of heat at night, which kept the ground too cold for either rapid root or stalk growth. When the drawbacks are duly considered, with almost a certainty of showers at no distant date, as an entirety as far as seen the crop prospect is a favorable one, particularly the ratoons of the first year, where in many instances canes can be seen only several days old. The writer has recently seen fields, if they could be fertilized with 400 pounds of chemicals of high grade, have stand enough to insure 5000 pounds of sugar per acre, if they could be cut even early in December.

Cultivators of different types, most of them too lightly constructed for rough usage on plantations, plows and hoe gangs are now kept busy, as far as the labor supply will permit, cultivating the fields of cane and corn—some of the latter having already received the laying-by working. The velvet bean is being tested on a small scale on Southdown, the estate of the late Mr. H. C. Minor, and at Concord, of Col. William Minor. At Argyle, of Messrs. Bonvillain Bros., they propose to use what is termed the wild pea on an extensive scale this season. It is claimed they possess two very desirable qualities—are not easily injured by rains and keep green until frost.

The crops up the Bayou Black on the line of

railroad present that mixed appearance to be seen elsewhere. At Hollywood, a portion of the estate of Mr. H. C. Minor, are some excellent fields of plant cane and stubble; at Crescent Farm, the Shaffer estate, the canes seen from the road are somewhat small, but the rear fields look well. The corn in the parish has been laid by. At Ellendale the crop prospect seems favorable, with excellent plant cane on the front. At Ardoyne, of Mr. J. D. Shaffer, no plant cane to be seen immediately on the road; corn crop promising, laid by with pease up. At Belle Grove, of Mr. J. McBride, rear fields look well, and promising plant cane crop; also at Rebecca, of Mr. R. Cocke.

Wednesday of last week, fair; Thursday, fog, fair, warmer; Friday and Saturday, fogs, and sunshine later; Sunday and Monday, partially cloudy and warm south winds; Tuesday, fog and very warm, and Wednesday light fog and heavy dew.

The official weekly weather report from Schriever is as follows:

	Temperature.	Sunshine.	Rainfall.
May 9.....	83	48	100
" 10.....	87	53	50
" 11.....	69	58	100
" 12.....	85	55	100
" 13.....	89	55	100
" 14.....	92	56	100
" 15.....	92	56	100
	85	54	93

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The weather still continues dry and windy, and present indications are that rain is several days off yet. It has not been so very long since we had rain, but the incessant high winds have completely dried all moisture out and driven it from the surface. Vegetation of all kinds is suffering for rain; field crops have suffered very much for the past five or six days and another week of drought will injure all crops save cane very materially. The cane crop is weathering the drought as well as could be expected. Plant cane has been checked more in its growth than stubble, though, on a whole the cane planters are generally, taking everything into consideration, well pleased with the present condition of the crop. The stand is very good of both plant and stubble. Chinch bugs are reported to be on cane in several sections, but damage from them is not alarmingly looked forward to. Corn, however, is less fortunate and is being badly damaged by both, the drought and the chinch bug. The former spreads over the entire parish, but the latter (the insect) is infesting certain localities only.

THE PLANTER correspondent was through the entire cane and corn belt east of Abbeville a few days ago, and careful investigation failed to reveal the presence of this bug beyond a limit of five miles east of Abbeville; both north and south from Abbeville, on the Vermillion river, they are found in great quantities. The cotton crop is very backward, and though the dry weather is not hurting it much, the cool weather is. Potatoes and garden vegetables are drying up. The rice crop in the immediate

neighborhood of Abbeville and the crop at Gueydan is looking fine. This rice is irrigated. But a small acreage of "Providence" rice has been planted yet. THE PLANTER man drove through the country to Gueydan last Friday, the 13th, and the appearance that the entire country presents around that flourishing little town is beautiful to behold. It is strictly a rice country, and as far as the eye can see, in every direction from the town, and that is quite a distance, for the country is one vast prairie, it beholds one solid rice field. The vast irrigating canals have been repaired, the levees have been remodeled, the lands are cultivated up to date, and all in all everything presents an exceptionally neat and clean appearance, which is indicative of thrift and prosperity. These vast fields are already green with rice, which is large enough to admit an inch of water over the land. Here we saw the prettiest stretch of water that it has ever been our pleasure to look at. The Vermillion Development Company has just completed a canal running south from the main canal east of the town, which runs four miles on a section line. This canal is about eighty feet, and the levees are about 4½ feet high; everything about it presented a clean, neat appearance; the water was undisturbed, with not even a piece of trash floating on its surface, and the "V" shape that was presented by looking south on this canal would be called by tourists picturesque.

The Vermillion Development Company has about completed its immense feeders to the main canal, and when finished will have an everlasting supply of water. The future of the Gueydan country can not be foretold, but it is safe to say that within five years it will be the finest and most prosperous country south of the Mason and Dixon Line. The town of Gueydan is rapidly growing, and bids fair to be the banner town of Southwest Louisiana.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: The dry weather which has prevailed during the past twelve or fourteen days has enabled the planters to get their fields and crops in an excellent condition for rain, which it is claimed is now beginning to be needed, but not seriously so. I find that wherever the ground has been kept stirred and worked, not too deep near the growing plants, and in a manner to destroy whatever clods may be found, that cane and cotton are now making a strong, healthy growth. It is remarked that many who live by cultivating the soil seem to entirely forget the conditions as to seasons from one year to the next. Whether this is actually so or not, I will at this point refer to my notes of May, 1897, in which I find written: "The crop prospects are not at all promising; corn poor," closing with, "May has been too dry; crops late." These were the facts existing last May. However, a bountiful harvest was gathered by the farmers.

To-day I can see no reason to cry for rain, for all the principal crops known to the country are fully from two weeks to a month in advance of last year—same day and date. Cane,

which is nursed and watched with more care and tenderness than any one other crop produced, is growing up into the air and sunshine beautifully, and the planter, if there is such a one, who is not to-day tickled over his cane fields and prospects, has indeed a poor eye for art and the beautiful growths in plant life. Through the kindness of a friend from Le-compte, Rapides, calling this week on THE PLANTER's scribe, it is learned that all crops are, as a rule, in good tilth for growing and look to be very promising in the vicinity of Loyd, Meeker, Lecompte and Lamourie.

The cane crop on Mr. E. V. Weems' Coco Bend plantation is to date very promising, as well as that found on the various plantations in the locality. Mr. Weems is extending his tramway lines as far up the Bayou Beuf as the Ashton plantation, and is otherwise preparing to work a heavy tonnage of cane through his Chetwood factory into sugars this coming season.

The Powhontas plantation, managed by Mr. C. G. Fuselier, has a decidedly fine prospect for a big cane crop. The plant cane on the place presents a perfect charm, while the stubble standing over its large acreage may be classed as equal to the best, with an enlarged acreage planted to corn, growing and promising, to be followed with a big pea crop. Mr. Fuselier, the worthy manager of Powhontas plantation, may well rest his claims to the production of profitable crops. In the vicinity of Bunkie, Leinster, Evergreen and Cotton Port, as reports have it, cane, corn and cotton are growing and very promising, as far as the season is concerned. In the neighborhoods of Eola and Haasville cotton has been worked to a stand, neatly cultivated and growing. Cane and corn are both very promising, growing and waving over broad acres in beautiful tints of green.

Pease are now and will be planted by every one who can afford to do so, for it is the pea that is looked to as the soil builder to grow paying crops of corn, cane and cotton.

Mr. A. D. Harvard and Mr. M. Bubenzer, progressive planters of Boonville, Bunkie P. O., have met with a fair share of success in planting; and to-day their broad fields of corn, cane and cotton give promise of a bountiful harvest, provided the seasons are propitious for so doing.

Want of space forbade my mentioning in last week's [correspondence that Mr. C. F. Knoll when planting cane this spring, planted a few cuts to one running cane—no laps. The seed was exceptionally sound. The results obtained are a surprise to him; the stand of young canes in the rows coming from the single stalk is equal to that planted in laps of two and three stalks in a place. But suffice this for to-day, with a promise of further notes on this matter at some future time.

ERIN.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: Remarkably dry and windy weather has prevailed for the past week. The want of rain is being extensively felt; in fact everything is acutely suffering from its need. For a long stretch of five weeks

not a drop of water has been seen falling. We can well imagine how it has become a necessity. Everything is drying up with the rays of this hot sun. Since about a week ago clouds gather daily and the impatient planter can almost see the drops coming down, but the big clouds seem not to be intended for rain, as they merely gather up daily and hide the sun away from us for a few minutes at different intervals, and then disappear, leaving us a clear sky and in suspense and doubt as to when rain will really come.

The dust which has been caused by this drought is something dreadful and none but those obliged to be in the roads go out.

Summer is making itself felt, the thermometers having already registered above 80 deg. in the shade, and even the hardy overseers tell of the stinging effects the sun already has on them. Still winter has not altogether disappeared, for last week we had quite a cool spell of weather, rendering the atmosphere almost chilly and making winter clothes most agreeable.

The crops in general are necessarily suffering from the want of rain. The planters, however, are not despairing, and ploughing and hoeing are being done. Corn on many places is laid by.

Mrs. Mary Jacobshagen's neat and fine Union plantation has again a very good crop, which, with the aid of a good fruitful shower and more strokes of the plow and hoe, will certainly be the pride of its owner. All know Mr. Fred. Jacobshagen as one of the best managers St. James has, and one knows that all that should be done for a well cultivated crop is never neglected by him. Mr. Fred. has lately put up a very high windmill in front of his place, near the river bank, from which he expects to supply the entire place with water from the river. This will certainly prove very accommodating, especially when water is at such a high demand as at present.

We note with pleasure the completion of the residence which our popular Dr. Gaudin has had built for himself. It certainly answers fully to what an elegant residence and comfortable home requires, combining beauty and comfort most effectively. We understand that the doctor and his family will soon remove into the new dwelling.

Since last we wrote, Mr. Cherboinier's Helvetia factory has dried some second sugars which we hear have given quite satisfactory results.

Miss Antoinette Jourdan, a charming young lady of New Orleans, is spending some time at Convent with relatives and friends.

CONVENT.

Iberia.

[Special Correspondence.]

Editor Louisiana Planter: Your valuable journal having no correspondent in Iberia would lead one uninformed to suppose that it was an inconsequent sugar parish. Lest some might think so, I will say that Iberia's contribution to the sugar crop of 1897-98 was fifty-three million (53,000,000) pounds.

Here on the beautiful Teche are situated some of the mammoth sugar factories of the State, notably Vaufrey, Rightway, Linden, Enterprise, Bayside, Loizel, Orange Grove, Morbihan, Sarah, Vida and Maria, not forgetting the great Segura on the Southern Pacific Railroad, near New Iberia, which has a capacity of 1200 tons per diem. These factories are all prosperous and are being given the usual overhauling and preparation for the coming cane crop, which promises to be the largest on record, and I might add the most profitable. The last year's prices and the prospect of an advance on those have greatly stimulated the planting of cane, and it might be said that Iberia is rapidly becoming one vast field of cane. Lands are eagerly sought after, either for rent or purchase, full prices being obtained in both cases. Indeed, desirable lands on Bayou Teche are very scarce, nearly all having been recently purchased by ambitious and enterprising factory owners. The days of cheap sugar lands from Morgan City to New Iberia are a thing of the past, all the gaps have been closed and now emerald oceans of cane take the place of deserted barrens or brown pastures. The searcher for cheap sugar lands must now turn his steps to the fertile lands of Vermilion and St. Martin, where many handsome estates can yet be obtained at prices far below those of Iberia and St. Mary. Vermilion and St. Martin in the near future will be a vast sugar centre, developed by new railroads, new men, new methods.

A few pessimists predict the downfall of sugar in Louisiana "by reason of the war in Cuba, resulting in a rush of Americans and American capital there, which will be certain to develop the island immensely, endangering the domestic product." Some years will elapse ere sugar from Cuba will menace the home product, and those years will be ones of domestic development, profit and establishment, so that the friends of beet and cane can combine to defeat any ruinous competition from foreign sugars. A good move in this direction was recently made by the Louisiana Sugar Planters' Association, by which it allied itself with the American Protective Tariff League, which organization has done more to develop and protect American industries and labor than all other organizations combined.

We need rain badly, but nothing is suffering. Iberia planters know how to irrigate with harrow and cultivator. Cane and corn are looking well.

More some other time.

NOTE.

St. Charles.

The river is steadily falling, and is leaving our banks, much to the inconvenience of our rice farmers. Rice grassing has begun in our immediate vicinity.

The dry spell which has been lasting now fully a month is beginning to make itself felt, and is also getting disagreeable as well as inconvenient. The dust in the roads is horrible and the cisterns need a fresh supply of water. In fact a good heavy and lasting rain would be welcomed.—*Herald, May 14.*

Trade Notes.

The New Kenilworth Central Factory.—The well-known firm of Krajewski, Pesant & Co. are now building a complete milling outfit for the new Kenilworth sugar factory, secured for them by their representative, Mr. A. F. Slangerup. This milling outfit consists of one six-roller mill, size 7 feet by 34 inches in diameter, combined with one Krajewski's patent cane crusher, size 6 feet 6 inches long by 26 inches in diameter. Both mill and crusher are driven by Corliss engines. The mill will be designed and built as the Cuban mills, of which this firm has a great number working in Cuba. The cane and intermediate carriers will be of steel. This whole milling plant will be erected and ready for work by October 1, 1898.

Dixon's Scientific Cycle Chain Graphites.—The Joseph Dixon Crucible Company seem determined to lead in the matter of lubricants and have brought graphite lubrication to such a degree of excellence and success that engineers everywhere are adopting it. The company is manufacturing a special grade of graphite for bicycle chain lubrication, and the readers of THE PLANTER, many of whom are cyclists, will be glad to learn of this use of this favorite lubricant.

A Steam Fire Engine.—We are advertising for sale in another column a steam fire engine by the Silsby Manufacturing Company of Seneca Falls, N. Y. This steam fire engine was formerly owned by the city of Alexandria, where it was in use, but was superseded by the erection in that city of an electric light and waterworks plant with a standpipe, which furnished a sufficient head of water to make a steam fire engine unnecessary.

The growth of our large sugar plantations and the preservation and protection from fire of the large values there concentrated is a matter of great importance. This could be readily attained by securing a steam fire engine of the character advertised in our columns. We would suggest the advisability of all those interested writing to Mr. John Dymond, Jr., attorney at law, No. 239 Carondelet street, New Orleans, La., who has the engine for sale.

Mr. Victor Meyer, of the Cora plantation, was in the city during the past week.

Mr. H. C. Boas, of the Teche country, was registered at the Hotel Royal on Saturday.

Mr. H. Shelby Sanders, of St. Mary parish, was in the city on a visit a few days ago and registered at the Hotel Royal.

Mr. J. A. Callery, a prominent planter of St. James parish, was at the Cosmopolitan recently, accompanied by Mrs. Callery.

Mr. Earl S. Barnett, of Shadyside plantation, was a guest of the St. Charles Hotel a few days ago.

Mr. Frank W. Nicholls returned on Thursday from an interesting trip to the coal fields of Alabama, where he thoroughly investigated the possibilities of the country, and its capacity for coal and iron production, the whole forming a most interesting study.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, April 30, 1898.

Editor Louisiana Planter: Another week has elapsed and I am not yet able to report the urgently longed for advent of spring. The period under review opened with cold and bleak weather and some rain showers have also taken place, but these were only local, and there has been some slight improvement inasmuch as moist precipitations have been less frequent and also less copious, and there have been also one or two days when the temperature rose to a more seasonable point; however at the close, the weather has been as inclement as ever, so that the backwardness of vegetation has become more accentuated. For field operations, as must be admitted, the weather has been a trifle more favorable, but in most cases it could not be taken advantage of, because of the moisture of the soil, and thus it is now out of question that the beet sowings, at least the bulk of them, can only be done in the month of May, whilst in other years to this month only a small part of this work is left. This delay is not auguring well for the next beet crop, and it remains to be seen how much harm has been done. In regard to the other beet growing countries of Europe the situation has not changed materially, the western countries such as France, Belgium and Holland being still ahead of Germany—in a certain degree also Austria—whilst Russia is reported to be backward on account of exceptionally cold weather having prevailed there nearly up to the present time.

The question of the legal position of the sweet stuff, called saccharine in Germany is not settled yet. The other day the discussion of the matter was begun in the Reichstag, and while from one side the harm done to the public and to the treasury by an unlimited sale of the substance was insisted upon, the other side was against measures causing the ruin of the whole industry and denied besides the alleged injurious consequences to the public health. But no action was arrived at because not a sufficient number of members were present. The statistics of the German Reichstag required at least one vote over and above half of the members if bills shall be enacted or refused, and this after counting the members was shown to be not the case. It is besides very doubtful that any decisive action will be taken in this session of the Reichstag, as the term of the latter expires on June 15, and elections will take place on June 16. For the sake of curiosity it should be mentioned that in the course of the short discussion a strange fact has been revealed. A number of breweries had sent in a petition whereby they requested the Reichstag not to adopt the bill which forbids the use of the saccharine in the process of making beer, because saccharine was an excellent preservative substance, very advantageous for small breweries, who could not afford to build large cellars to keep the beer in good condition, and there was also a part of the liberal press who sided with the

so-called breweries. These latter, however, were only small concerns who indeed sell some beverage under the name of beer, but which is none, for instead of using malt to give the beer the sweet flavor they supply saccharine, which is much cheaper than the former, but is quite destitute of any nourishing quality. But however this may be, it is the good right of the petitioners to fight for their interests, and nobody could blame them for the step they have taken, but it seems that they have represented the interests of a saccharine factory, for it came to light that the factory in question has offered 1000 marks—of course, under the title of covering expenses of the campaign—to those who effectually worked for the declining of the bill under consideration. By the way, those who are opposed to the use of saccharine are also not quite satisfied with the construction of the bill, inasmuch as it provides only for a prohibition of mixing it with any articles of food, whilst in general it is desired to forbid the sale of the substance except in drug stores for medical purposes.

The International Congress of Applied Chemistry, repeatedly mentioned already in these letters, will take place this year in Vienna, from July 28 to August 2. There are a great many questions directly connected with sugar industry which are to be discussed there, and every sugar scientist should not lose this opportunity to learn and to search, as the case may be, in personal exchange of opinion. For particulars apply to the general secretary of the congress, Wien 4½, Schonburg strasse 6.

It will be even to many of those who are well versed in sugar producing matters a strange fact that Germany, a beet growing country *par excellence* as it is, is importing beets from abroad, the greater part of these imported beets coming from Russia (Poland). One German factory, situated on the frontier, received from that country in 1896, according to a Russian source, 1432 tons, and it is reported that the farmers on the other side of the frontier are quite glad to find in beet culture a remunerative branch of agriculture, the more so as the sugar factory in the German province of Posen offers the most acceptable facilities with regard to transportation, advances, etc. The importation of beets into Germany is not subject to an import duty, otherwise, of course, transactions of this kind would be impossible.

The statistical situation of the three principal beet countries of Europe, Germany, Austria and France, as for March 31, is outlined by the following figures: Production, 3,327,444 tons (in 1897, 3,354,321 tons); importation, 70,152 tons (99,999 tons); exportation, 1,272,614 tons (1,254,114 tons); consumption, 1,093,669 tons (942,182 tons). Final stocks: 1,785,585 tons (1,954,059 tons); decrease of stocks in March, 206,241 tons (297,103 tons). The movement of sugar in the three empires has been less favorable than in the former months, because of a marked decrease of exportation in Germany and Austria as compared with last year, when at the corresponding period large quantities were shipped to the United States.

The rising movement of the market inaugurated last week has found its full develop-

ment in the course of the period under review. The expectation of earlier purchases of America in Europe than counted on before and the weather delaying the sowings of the beets induced speculative and *bona fide* buyers to operate on a larger scale than in a long time since, and under the influence of extensive transactions in all commercial centres prices rose daily until toward the close a quieter tone set in, putting a stop to the advance, which, however, on favorable news might be resumed at the shortest notice. Prices for actual 88 per cent. sugar gained at Magdeburg 30 pfennigs, their quotation now being 10.25 to 10.55 marks, whilst the f. o. b. Hamburg quotation is 9.40 marks. Refined are also firmer and about 25 pfennigs dearer. ROBERT HENNIG.

British Honduras.

[Special Correspondence.]

TOLEDO, B. H., May 9, 1898.

Editor Louisiana Planter: The dry season, after it did set in, turned out to be very fine, and sugar makers took the best advantage of it, many of whom have finished their crops. Some, however, are not through yet. It has been raining the last few days; as the natives say, "the moon is doing it." No one thinks, however, that it is the real wet season, but there will probably be very little dry weather after this. The copious showers are very refreshing to young cane that is beginning to grow, and it looks very fine.

Dr. Pearce, owner of the Eldridge plantation, so far has made a very fine crop of sugar, though he is not near through. He is working up all his crop into white sugar, and even a balance of his old crop, some 200 barrels of sugar, he is mixing in with his cane juice and working it over. His seconds are treated the same way also. His vacuum pan man (who is from Louisiana) says he had to almost learn over the art of sugar boiling. He has, however, succeeded most admirably. He thinks the sugar will test 98 deg. Having been so successful, any one would think that Dr. Pearce would be on the highway to prosperity, but something turned up which was the least expected. The dealers, and in fact nearly everybody, have boycotted him, and will not buy his sugar. Dealers want him to sell them a few barrels for 5 or 6 cents per pound, and let them sell it at 10 or 12 cents at retail, and in that way supply the demand for imported white sugar, but this does not suit the doctor. There is only 300 to 500 barrels of white sugar imported to the colony each year, and as there is 2 cents per pound duty on it, and the importers having the monopoly of the business, they have a chance to make large profits.

On the part of the general consumer he will tell you he prefers brown sugar to white, because it is sweeter; and, in fact, the average native looks at it as a chemically prepared article which may prove dangerous to fool with. So the doctor is placed in a predicament which rather taxes his wits to cope with. If he puts down his price to the ordinary brown sugar he will hear a war cry from his fellow-planters, and if he keeps it at the price the dealers want him to, he will only sell half his crop, unless he finds a market for it on the adjoining coast. This he probably will do, as the Spanish-American countries are more in the habit of using the better grades of sugar. Verily, the trials of a sugar planter in British Honduras are many. TROPIC.

BEET SUGAR.

Sensational Data Concerning the Beet Sugar Factory at Menomonee Falls, Wisconsin.

Editor Louisiana Planter: It was hoped and expected that the legal complications concerning the Wisconsin Beet Sugar Company, which was organized in March, 1895, would be settled in time this year so that the farmers near and about Menomonee Falls would be able to raise a crop of beets without repeating the experience they had in 1896. As the situation stands there is little hope of operating the plant next fall, although it would take only two months to set it in working order providing farmers could be induced to raise beets.

The time thus far has been taken up in establishing the claims of alleged preferred creditors. They were argued before Referee D. J. Hemloch, of Waukesha, and nearly all allowed excepting that of Karl Korn, who was manager and superintendent of the plant during its construction. It was reported in these columns and it will be remembered that at the time the concern became financially embarrassed in April, 1897, the management averred that Manager Korn was unable and had lacked the ability to set the plant in operation, according to the contract, and he was dismissed. The latter claimed that this was a device to get his portion of the interests in the concern. When the claims were established Mr. Korn's lien was referred to Special Referee C. E. Armin, who was appointed by Judge Dick, of Waukesha, to try the lien suit.

The report of the commissioner has just been handed down; it comprises some fifty-two pages and contains some extraordinary and sensational statements. The commissioner finds the plant one of the most improved in the country and could have successfully been operated had the manager been allowed to proceed without interference. It was learned that the Wisconsin Beet Sugar Company had made an agreement with Mr. Korn to pay him \$15,000 for his services as architect and superintendent of the building and machinery. Another agreement was made between Mr. Korn and the Richters, who by the way furnished all the machinery, in which the former was to receive one-fifth of the \$76,000 worth of stock that was turned over to the Richters for their interest in the plant. The plant was erected at a cost of about \$166,000, which exceeded the capital by \$16,000. James S. Gates, who is president of the company, entered into an agreement by which he was to take a mortgage for \$60,000 upon the plant and receive \$80,000 worth of stock. The commissioner says that this agreement was made with Mr. Jungbluth and no satisfactory explanation was given as to the transaction.

Continuing, the commissioner says: "The only rational conclusion as to why the original agreement made between Mr. Jungbluth, representing the company, and Mr. Gates, about August 1, 1896, was not carried out, is that it did not give Mr. Gates and his associates the control of the company or the majority of the stock. Negotiations for obtaining control of

the stock were shortly thereafter opened and continued to February 20, 1897, when they had progressed so far that arrangements had been made to secure the controlling interests, but failed because they had made it a condition that Mr. Korn and the Richters should release their claims for liens. Mr. Korn was not present at the meeting of February 20, 1897, but was confined to his house by illness, and the release of lien was at about that time presented to him at his house by Mr. Jungbluth. Mr. Korn refused to sign the same unless the \$15,000 due him under his agreement with the Wisconsin Beet Sugar Company for services as architect and superintendent were first paid, and thereupon the deal fell through and the tentative agreement which had been drawn canceled.

"That, after the plans and detail drawings for the machinery were completed, and the buildings and machinery made in conformity herewith were nearing completion, those engaged in said enterprise with said Korn, excepting the Richters, and otherwise than those found herein, conceived the idea of erecting said enterprise, and availing themselves and those with whom they were thereafter to associate of the fruits of his knowledge and labors without compensating said Korn in any manner.

"In setting up the various machinery preparatory for the operating test, which was commenced April 20, 1897, and usually lasts about two weeks, and in testing the various machinery as it was set up under Korn's superintendence, the evidence is clear that there was placed in the machinery, with evil intent, obstructions, so as to prevent the same from being operated, causing breakage, particularly in the slicer, diffusion and pulp press, and the pipe connected with the pipe which enters at the bottom of the water tank, from which the sediment flows off to the sewer was connected, as was shown on the photograph, running to the sack filter, and which also was connected as to run to the juice tanks, from which the juices enter the evaporator and the vacuums are fed. They were wilful and malicious acts, as it must be apparent that no one would innocently throw a monkey wrench, babbitt metal, chunks of iron, 2 x 4, etc., into such machinery, or to turn on such force or amount of air as to blow off the tops of the diffusions, or to open a valve and allow dirty water to mix with filtered juices, which was done repeatedly, and greatly delayed Mr. Korn in preparing and operating the plant."

In view of all this evidence the commissioner finds that Mr. Korn's claim for lien is a valid claim prior to all other claims and it is allowed at \$15,900, with interest. The report has been sent to Judge Dick for confirmation, and it is believed that ere many weeks elapse the plant will be sold out and then put in operation. Mr. Korn, in speaking to the correspondent some time ago, said: "I'll get that factory as sure as God lives in heaven," and it is believed by some that he will invest, as he knows of the adaptability of Wisconsin soil and prides himself with the first venture in the beet-sugar industry, which he says is bound to prosper despite all obstacles.

R. G. S.

Chino, California.

There are some remarkably fine looking fields of beets southeast of town, which give promise of being proof against a dry year. The soil is quite moist on top, mostly in good condition, and looks as though it would grow an immense crop of beets.—*Champion, May 13.*

Grande Ronde, Oregon.

Superintendent Austin and Edward Smith are in the city, and they, like all beet experts who have been here, express themselves as being thoroughly satisfied that Grande Ronde is an ideal sugar beet section. Superintendent Granger spent several days driving his visitors over the valley. It is needless to say that they enjoyed the trip, and have naught but praise for what they saw. Mr. Austin informed the *Advocate* that the prospects are excellent for a good crop in Utah. Speaking about the general conditions at Lehi as compared with those existing here, Mr. Austin said: "The valley in which Lehi is situated is about one-eighth the size of your valley here. There we have 35,000 people in city and country. I see no reason why there should not be 150,000 people in Grande Ronde Valley. Your resources are entirely ample to support that population."

Mr. Austin will return to Lehi next Thursday, while Mr. Smith will remain until fall.—*Advocate.*

The Beet Sugar Industry in the United States.

The beet sugar industry stands to-day as the most prominent proposition before the American people.

Of all fields open to the investment of capital, either in lands or in the works where the sugar in the beet is extracted, the beet sugar proposition is the most attractive general industry in the Union. The enormous appetite the American people have shown in their consumption of sugar, contrasted with the very small production of the United States, is shown by statistics giving the value of imported sugar as about \$100,000,000 per annum.

The conditions under which the industry will grow, and under which all connected therewith will prosper, is an important subject, and should be most carefully considered by capital in its investments in sugar factories. The foundation on which the entire proposition rests, is agricultural climate, soil, and farmers enter into the question. We speak of climate first because, given the very best soil on earth, in a latitude where the humidity is beyond a certain arbitrary percentage, where rainfall in autumn is liable to be early and dangerous frosts are liable to occur; where frosts in winter are excessive and prolonged, success will be problematical. Let us speak of each cause in detail:

Humidity—a moist condition of the atmosphere conducive to the development of the seed and the early growth of the plant; dangerous later on in the growth of the beet root, as the tendency under very humid conditions is to develop the growing root near the surface; in other words, a turnip-shaped root,

rather than a true parsnip-shape, which is most desired. The absence of humidity tends to dry out the surface earth moisture and force the plant to grow downward. But the most dangerous feature in a humid climate is the fact that the beet root will not ripen, but will go on growing, and when the harvest time comes the root is still green, and consequently has secreted but a small percentage of saccharine; rich in tonnage, but poor in sugar, and consequently not valuable for the purpose of making beet sugar.

The beet root grown in a climate classed as arid, which covers to a great extent the territory west of the 100th meridian, has been found to be richer in saccharine than the beet root of Europe, and the cause has been a matter of surprise to many who have not had opportunity to study the development of the plant upon the ground. Continued unbroken sunlight is the essential to secrete the sugar in the beet. So long as the root finds enough moisture and to spare, it will keep on growing, and frequently after the ripening process has begun, and the polariscope has shown a satisfactory percentage of sugar present in the beet, a rain will cause a new or second growth to begin, and the sugar content goes down to a marked degree; should the rains continue or the ground retain enough surface moisture to continue this second growth, good-by to sugar in the beets under the conditions outlined.

The sugar works extracting the sugar from beet root showing from 10 to 12 per cent. saccharine to the weight of the beet can not compete with the more fortunate plant, slicing beet containing from 16 to 18 per cent. sugar.

Frequently an analysis of soils and a canvass among the farmers of a district will make it appear that the factory is the only thing to be desired. The promoters fail to take climatic conditions into serious consideration.

Hence we say, unhesitatingly, after a personal study in actual contact with the growing crop, the farmer and the factory, that climate is of the greatest importance. In a letter from Berlin, Germany, dated May 29, 1897, signed R. Hennig, the writer states:

A German consular report from Constantinople contains some interesting details on the sugar trade, etc., in Turkey. An attempt was made to introduce the beet sugar industry into that country. A Belgian company built a factory near Adrianople, but it appears that the beets grown there were not rich enough in saccharine matter to warrant a successful working of the factory, which indeed, after a short existence, was abandoned.

This is very good evidence to sustain our argument.—*California Sugar Beet.*

The Sugar Beet in the United States.

VALUABLE INFORMATION GIVEN OUT IN THE RECENT REPORT OF THE SECRETARY OF AGRICULTURE.

The recent report by the Secretary of Agriculture regarding the beet sugar industry in this country states that it is full of promise. Although in 1897 only $2\frac{1}{4}$ per cent. of the

amount of sugar consumed in the United States came from our own beets, and it is not expected that we can increase this proportion beyond 4 per cent. in 1898, the future is very bright. The total output of 90,491,870 pounds in 1897 came from nine factories—four in California, two in Nebraska and one each in Utah, New Mexico and New York. This product represented about 11.6 per cent of the weight of the beets, being a less percentage than is obtained in Germany, but regarded as sufficiently encouraging in view of the newness of the industry here. The beets used were harvested from 42,272 acres, the yield being nearly nine and one-half tons per acre. This is also less than the average in Europe, but it is hoped to better it with more scientific agriculture, and with the introduction of a new variety of beet better suited to American farmers. The department, indeed, has expectations of developing a variety of beet which will have at least a third greater weight than the standard beet of Europe without losing anything in sugar content or in purity of juice.

It is to be expected that eight additional factories will be in operation in 1898, California adding four, Utah and New York, one each, and one each being established in Oregon and Michigan. This means, of course, an increased area devoted to beets, about double that of 1897, from which an estimated harvest of 800,000 tons of beets, yielding 180,000,000 pounds of sugar, is anticipated.

In respect to the physical conditions affecting the growth of the sugar beet in the United States, the Secretary of Agriculture says that the best results in 1897 were reported from the States of New York and Michigan. Other States in which reports were favorable were Wisconsin, Ohio, Indiana, Minnesota, Nevada, South Dakota, Wyoming, and Colorado. States giving fair results were Iowa, Nebraska, New Jersey and Pennsylvania. In general, it was found that after passing south of the mean isotherm of 71 deg. F. for the three months of June, July, and August, the results were poor.

It is found that the belt of territory included between the limits of the isotherms of 71 and 69 deg. may be regarded as the basic belt of the beet sugar industry. The best results are obtained within or north of this belt, other climatic conditions being favorable. Extreme northern limits of sugar beet culture are determined only by the advent of freezing weather. A comparison of analytical data with the thermal area shows a remarkable agreement.

In States so situated that their northern portions are in the favorable thermal area, while their southern portions are without, comparison of the analyses of the beets grown in the southern, central and northern portions of these States shows a regular gradation of excellence from south to north.

The conditions of growing beets under irrigation have been studied somewhat, but imperfectly. The data collected, however, are very reassuring, and lead to the belief that irrigated lands, under proper thermal conditions, will give most excellent returns with beets.—*Manufacturer.*

Prof. Aime Gerard.

The death of Prof. Aimé Gerard, says an English contemporary, has excited great regret in France, as his contributions to the chemistry of agriculture were very considerable, notably his investigations as to the cultivation of the sugar beet and as to the improvement of the potato. Mr. Bowick writes from London as below:

"The cultivation of beets and the manufacture of sugar therefrom in France passed through a grave crisis during the periods 1875-1885, when not only the Germans but also the Austrians forced their way in front of the French producers. The latter, confident of holding the position they had attained early in the century, continued to grow beets containing about 10 per cent. of sugar, and to extract by manufacturing process from 5 to 6 per cent. Meanwhile Germany had discovered how to grow beet root with 15 or 16 per cent. of sugar, and how to extract as much as 11 or 12 per cent. It was the opinion of Gerard that, by improved methods of cultivation and more exact systems of manufacture, as good results might be obtained in France as in Germany. Accordingly, by his lectures at the *Conservatoire des Arts et Metiers*, by his researches on the beet plant and its cultivation, and by the confidence with which he inspired both farmers and sugar extractors, he contributed more than any other person to the progress of this important branch of French agriculture."—*The Country Gentleman.*

Mule Driving in Barbados.

We have repeatedly drawn attention in these columns to the unmerciful way in which heavily laden mules are treated on the public roads. It is no uncommon thing to see team after team in a swinging canter rushing up the hills—the steeper the hill, the swifter the pace—drawing trucks heavily laden, not only with produce, but with passengers, while the leader boy, swinging on by a long rope to the leaders' mouth, lashes the unfortunate leader into a gallop, although his neck is bent to ease its tortured mouth. It is time that something should be done to restrain this reckless cruelty. A little more supervision on the part of those in charge of sugar estates would be beneficial. Some one ought to see to the comfortable harnessing of the mules—straps let out to suit different sizes—couplings adjusted comfortably, not, as frequently the case, a blinker drawn up to suit a small head forced on a larger one, the result being painful bruising of the sides of the mouth, which is too often further wounded by the coupling rod fastened carelessly to the bit with wire, and the whole jammed against the unfortunate animal's teeth and gums by the lout of a man swinging to the rope. If owners, managers, and caretakers would supervise these matters, the drivers would learn to be more careful and humane; enforcement of the Reed act would do the rest.—*Agricultural Reporter.*

Personal.

Mr. John C. Bussey, of the well-known planting firm of Pharr & Bussey, was in the city during the past week and stopped at the Hotel Royal.

Mr. H. Shelby Sanders, of Jeanerette, was in New Orleans on a visit a few days ago.

Hon. Walter A. O'Neill, of Baldwin, was a recent visitor to the city. Mr. O'Neill was accompanied by his son and stopped at the Hotel Royal.

Mr. George Hill, of Port Allen, was in town on Friday.

Fuel Economy and Latent Heat.

Fuel economy, intricate in its ramifications throughout the tropical cane sugar factories, has not in many instances received that attention which it deserves when viewed purely as a means of enhancing the profits in manufacture. In the early stages of the industry the juice was extracted from the cane by animal-power, and the evaporation was accomplished through the instrumentality of direct heat; later steam power was utilized to crush the canes, and at present in all the up-to-date factories the entire process of manufacture is carried on, firstly, by utilizing the power, then the heat of the steam generated by the combustion of fuel in varying quantities.

Even with the powerful compound crushing plants, boilers of large steaming capacity, with their absorbing surfaces, multiple effect evaporation, pans, etc., the coal consumption per thousand pounds of sugar is far in excess of what it should be in many factories, where large capital has been expended in the purchase of machinery and erection of the plants. Why such conditions exist can be traced to divers causes—differing somewhat in the numerous factories. As the industry has grown in magnitude, the plants have been enlarged and modified, the mills, boilers, multiple effects, etc., purchased from the different firms; yet none responsible for the economical working of the houses, hence the principal cause of the undue waste in fuel.

The nearer the market price of the agricultural product, cane sugar, approximates the average cost of production, the greater becomes the necessity to cheapen the raw material by increasing acreage yield of sucrose and the expenditures in labor, fuel, etc., in manufacture must be reduced to a minimum, by the selection of machinery and appliances which will insure the best results from an economic standpoint. The time is fast approaching when factories for tropical cane sugar will be planned, constructed and operated to attain economies in every detail, to accomplish which trained intelligence, gifted by nature (not interested sellers of machinery, and others not conversant with the up-to-date requirements), must select, combine and adjust the entire plant such as to enable proprietors to reap the benefits of intelligently expended capital. The milling plant, or plants, will be erected to obtain the highest paying juice and moisture extraction, yet the present tendency is to erect single plants with large seven feet long mills, with ponderous gearing, etc., but it is very questionable if such in time will prove as economical as two smaller plants, particularly in the saving of fuel, as the bagasse from the latter should contain less moisture than the former, when there is adequate strength and power in the engine to free the thinner feed of the contained liquid.

Regardless of the comparative cheapness of coal and other fuel in some cane growing countries, yet efforts are being made to dispense with other fuel than bagasse, and it is extremely unfortunate and very expensive to factory proprietors that the consumption of bagasse is yet in an experimental stage, if one

may judge by the varied types of furnaces and boilers utilized in the different cane growing countries. Space being no object, the possibilities are that later the flame from the furnaces will travel in a direct line to the stacks, under and through boilers of different types, carrying decreasing steam pressures, such that the escaping gases will leave a temperature but a little above that of steam in the last generators.

The aim of the factory owner should be to economize fuel if possible without the expense of new furnaces, enlarged batteries of boilers, multiple effects, until conditions justify radical changes in the defective portions of plant, as much of the apparatus in most houses will become almost valueless in a short term of years, due to the changes which will be made in the methods of manufacture, and the greater perfection of furnaces and machinery. To husband the heat once absorbed by the water is to save fuel—to accomplish which the loss from radiation through pipes, etc., should be reduced by using the best non-absorbing coverings.

Another source of great waste is the escape of steam through defective joints, cylinders, etc. From the amount of steam to be seen escaping in some factories when in operation, one is constrained to ask when will owners and operators fully realize that such steam represents a cash outlay, and in consequence is money wasted? An expert joint maker is a valuable employee, whose services will be more than paid for in the decreased coal bill.

If a steamer can leave port and after a protracted voyage reach her destination with virtually the same water in her boilers as when she started, why can not factories be so operated that escaping steam will be reduced to a minimum, and the steam after having performed its functions of propulsion and evaporation, after being condensed into water, all be rapidly returned to the boilers as near the boiling point as circumstance will permit. The waters of condensation from pipes, pans, clarifiers, multiple effects, etc., may all be conveyed to a hot water well or any other receptacle, and from there fed direct to the boilers. If there is an excess of exhaust steam it may be used to heat feed waters or condensed and the hot water be conveyed to its recipient.

Should there then be a deficiency, a limited amount can be supplied by the sweet water pumps, as has been done elsewhere, without any injury to the boilers or their steaming; some even contend that such water is of benefit, as it tends to prevent incrustation. The hot water well or recipient should be so protected as to obviate the loss of heat by radiation.

The following extracts from a lecture delivered by Geo. H. Babcock, at Cornell University, 1887, will explain what is termed latent heat and show the necessity of utilizing hot water as a source of great economy in fuel.

The chemical compound known as H^2O exists in three states or conditions—ice, water and steam; the only difference between these states or conditions is in the presence or absence of a quantity of energy exhibited partly in the form of heat and partly in molecular activity, which, for want of a better name, we are accustomed to call "latent heat;" and to transform it

from one state to another we have only to supply or extract heat. For instance, if we take a quantity of ice, say one pound, at absolute zero (460 deg. below the zero of Fahrenheit) and supply heat, the first effect is to raise its temperature until it arrives at a point 492 Fahrenheit degrees above the starting point. Here it stops growing warmer, though we keep on adding heat. It, however, changes from ice to water, and when we have added sufficient heat to have made it, had it remained ice, 283 deg. hotter, or a temperature of 315 deg. by Fahrenheit's thermometer, it has all become water, at the same temperature at which it commenced to change, namely, 492 deg. above the absolute zero of 32 deg. by Fahrenheit's scale. Let us continue to add heat, and it will now grow warmer again, though at a slower rate—that is, it now takes about double the quantity of heat to raise the pound one degree that it did before, until it reaches a temperature of 212 deg. Fahrenheit, or 672 deg. absolute (assuming that we are at the level of the sea). Here find another critical point. However much more heat we may apply, the water, as water, at that pressure can not be heated any hotter, but changes, on the addition of heat, to steam; and it is not until we have added heat enough to have raised the temperature of the water 966 deg., or to 1178 deg. by Fahrenheit's thermometer (presuming for the moment that its specific heat has not changed since it became water), that it has all become steam, which steam, nevertheless, is at the temperature of 212 deg., at which the water began to change. Thus over four-fifths of the heat which has been added to the water has disappeared or become insensible in the steam to any of our instruments.

It follows that if we could reduce steam at atmospheric pressure to water, without loss of heat, the heat stored within it would cause the water to be red hot; and if we could further change it to a solid, like ice, without loss of heat, the solid would be white hot, or hotter than melted steel—it being assured, of course, that the specific heat of the water and ice remain normal, or the same as they respectively are at the freezing point. The heat which has been absorbed by one pound of water to convert it into a pound of steam at atmospheric pressure is sufficient to have melted three pounds of steel or thirteen pounds of gold. This has been transformed into something besides heat; stored up to reappear as heat when the process is reversed. That condition is what we are pleased to call *latent heat*, and in it resides mainly the ability of the steam to do work.

Through the instrumentality of the "latent heat" retained by liquids under certain conditions, bagasse alone may yet suffice for the manufacture of sugar in all cane-growing countries, if the heat is saved which would be required to constantly raise the temperature of the feed water from 60 deg. F. to 200 deg. F., and the latent heat in the liquor containing the sugar is effectively utilized to evaporate the surplus water in concentrating to say 27 deg. Baumé; but the temperature of the liquor must not, after leaving the multiple effect, be again elevated to 212 deg. F. in open evaporators, and then skimmed and then conveyed to tanks, there to remain and lose the major portion of the heat prior to concentration in the pan. When boilers evaporate ten pounds of water per pound of coal from and at 212 deg. F., if the temperature of the feed water is 200 deg. instead of 60 deg., there will be a gain of over 13 per cent. in fuel, and by maintaining the temperature of the feed water as near the boiling point—212 deg. F., as possible, not only is there a noted saving in

fuel, but the boiler plant is rendered more effective through the increased generation of steam. If a factory crushes 800 tons of cane per day of twenty-four hours, and the bagasse contains 11 per cent. of combustible fibre, there will be 176,000 pounds, 13 per cent. of which, if saved by the heating of the feed water as above stated, will amount to a large saving during the campaign, not only in labor and coal, but some of the boilers for the latter may be dispensed with, as the need of extra fuel may be decreased from 25 to 30 per cent. The first cost of pumps to force hot feed waters into the boilers may appear large, yet they are infinitely cheaper than the annual excessive outlay for coal, much of which is uselessly consumed through carelessness, and often want of skill on the part of the average firemen.

When the furnaces are constructed for the more perfect combustion of bagasse, the gases going to the chimney reduced to 12 per cent. instead of nearly 50 per cent. of the heat of the fuel, triple and quadruple effects are used instead of double effects (thereby utilizing more of the "latent heat" in the liquid being evaporated), and the steam and hot water intelligently economized—then the annual cost of manufacture will be very materially reduced.

THOS. MANN CAGE.

Terrebonne, La.

The Weinrich Improved System of Revivifying Bone-Black.

As known to those versed in the art, the present mode of revivifying bone-black consists in converting into carbon by destructive distillation those organic impurities absorbed by the bone-black during its use and which are not removed by washing. This is done in retorts at a red heat under careful exclusion of air.

It is likewise known that this mode of revivification involves a number of disadvantages, viz.:

1. The carbon originating from the organic impurities accumulates gradually and chokes the pores of the bone-black, and thus impairs its efficiency, until it becomes practically useless.

2. By this method of revivifying certain inorganic impurities accumulate, especially iron and sulphide of calcium, which are very injurious to sugar solutions.

3. The original percentage of carbonate of lime, which forms a part of the mineral framework of new bone-black and which is essential where the so-called "bloom" in sugars is required, decreases gradually by the present method of revivifying and sometimes disappears altogether, partly on account of excessive washing with boiling water, which frequently turns acid, and partly on account of overburning in kilns.

4. An entirely uniform burning in kilns is impossible, and therefore at every operation some of the bone-black will be overburned and some underburned. Through overburning the mineral framework of the bone-black will shrink gradually and will thereby lose in porosity and consequently in efficiency.

5. The great wear and tear on the kilns, and—

6. The considerable use of the fuel, owing to the fact that the bone-black has to be brought to and maintained at a red heat for some time.

The new Weinrich system of revivifying bone-black avoids all these serious disadvantages, and is besides very simple and cheap in its application and sure in its results.

It is not, like the kiln-work, based upon the principle of destructive distillation or carbonization, but upon the principle of oxidation. In carrying out this principle the bone-black is heated moderately in a suitable apparatus of simple construction and exposed simultaneously to a regulated draft of atmospheric air, whereby the oxygen of the air is enabled to penetrate into the finest pores of the heated bone-black, thus burning off the organic impurities.

Any contents of sulphide of calcium will oxidize into sulphate of calcium and any contents of soluble iron salts will oxidize into insoluble oxide of iron.

It has been found that these organic impurities will burn off at a much lower temperature than carbon, and since the temperature can be regulated to a nicety, a line can be easily drawn within which all the organic impurities will burn off before any of the underlying carbon is affected. Should there be any excess of carbon accumulated during former revivifying in kilns, then this excess can be removed simultaneously with the organic impurities by simply regulating the temperature, draft of air and feed of bone-black and without bringing the bone-black to a red heat.

The revivification is done in about twenty minutes. Feed of the bone-black, temperature and admission of air are regulated by simple devices and the whole work is easy to superintend. The advantages of this new system over the kiln-work are obvious.

The mineral framework of the bone-black retains its original porosity on account of the mild heat applied and its original percentage of carbon remains always the same because the organic impurities become completely removed through oxidation. The contents of carbonate of lime remains nearer to its original percentage.

The bone-black consequently always acts as though new, even in the filtration of very impure solutions, and only the loss through dust, which is not greater than with kiln-work, has to be made up by new char.

The use of fuel is only about one-half of that required for kiln work. The washing of the char in the filters can be discontinued as soon as most of the salts are washed out, as it is cheaper and time-saving to burn off rather than wash out the remaining organic impurities. On account of the mild heat applied, the wear and tear of the apparatus is much less than that of kilns.

These advantages mean therefore greater efficiency of the bone-black at considerably smaller working expenses, and they mean further that the Weinrich system is destined to supersede the present kiln work.

The Weinrich system is now no experiment. It has been in continuous and successful use

since November, 1894, in the National Sugar Refinery, at Yonkers, N. Y., and they have placed an order for another Weinrich apparatus with which to supplant more of their old kilns. The following statement from Dr. W. D. Horne, 'the chemist of the refinery, will doubtless prove more convincing of the merits of the Weinrich system than anything we may say.

The revivification of char by the Weinrich apparatus as carried out at the National Sugar Refinery of Yonkers:

Our apparatus (24 x 4 feet) revivifies perfectly from 75,000 to 87,000 pounds of wet char in twenty-four hours.

This char enters the drum containing 15 to 17 per cent. of water, the drier being too small. Char that contains less moisture can be revivified more rapidly.

This revivification is accomplished by oxidation of the organic impurities left by the preceding washing.

The machine is carefully regulated so that these impurities are completely burnt out without any carbon of the char itself being burned. The pores of the char are thus left open and we obtain maximum decolorizing effect from the char constantly. We have diminished the time of washing by one-fifth since using this method of revivifying, and a greater reduction can be made as soon as we have more machines.

We keep the percentage of carbon in the char constant; the percentage of carbonate of lime is not affected; we avoid overburning so common in the kilns, and the percentage of dust formed is not greater than in the kiln method.

Two thousand pounds of fuel are used per twenty-four hours and one man takes entire charge of machine and will be able to operate two machines without assistance.

The wear and tear on the machine is imperceptible and it never requires to be stopped for cleaning.

(Signed)

W. D. HORNE.

We shall be glad to furnish further information desired by those interested in this important innovation.

GEORGE M. NEWHALL ENGINEERING COMPANY, LIMITED,

136 South Fourth St., Philadelphia, U. S. A.
Philadelphia, May 1, 1898.

The Fogarty Cane Mill.

Editor Louisiana Planter: Sugar cane mills up to the present time have had the most of their troubles and breakdowns caused by the knife or trash turner being too wide, and also out of sight. Lately there has been an effort on the part of the builders to close the lower rolls in; and thus secure a narrower knife or turnplate, but none of them could bring the turnplate into view while the mill was at work. Only by taking out the rolls or removing the knife altogether could the trouble be found out, and so when the breakdown occurred, and the mill was brought to a standstill, repairs could be made, and then started up again to await the succeeding trouble.

To have the knife or turnplate in view all the time this cane mill was designed. The housing is made in circular form entirely open in its centre, with ample room to take the rolls out, or replace them by a very simple and cheap contrivance.

The claims for this plan of cane mill are for

very much more strength than in any mill yet made.

The housing is strengthened by three king-bolts, so that the entire strain or tendency to part the housing is taken up by the bolts. These bolts on any size mill can be from 3½ to 5 inches in diameter; no nuts being required, as the heads are forged on as shown, and the bolts shrunk in their place, and so the housing proper has no strain on it worth mentioning. The rolls are adjusted to suit the canes by bolts on the side of housing and adjusting blocks. The top roll is held up by four bolts 2 inches in diameter, and the post underneath the cap is to take part of the strain or thrust of the hydraulic. This hydraulic is made of bronze metal cylinders, and every part of it can be taken out and replaced without disturbing any other part of the mill.

The knife is held in place by a martingale bolt, and can be adjusted to suit, and can also be renewed with ease and promptitude, with the same mechanism that is used to remove the rolls.

The inventor also claims the fact of the knife or turnplate being in sight all the time, as well as the passing of the canes through the mill, will make this form of mill the favorite in time, with the additional reason that it can be made and sold for less money on account of the tools and method of construction being less expensive for labor.

This improved housing can be made to replace any old plan of housing, using the same brasses, the same crown wheels, and the same bedplate—the only expense being the housing. The brasses are shown round, but they can be of the same shape as now in use, and resting on a flat surface. In the adjusting block; the adjustment being operated by side bolts which are allowed to swivel and adjust themselves to any angle. Sugar planters desiring to change the old housing for the new can have plans made free of charge, provided they send on the correct dimensions of the old housing.

The cane breaker is strong and simple in construction, and all mounted on an iron frame, which takes the place of the masonry heretofore used, and thus reduces the cost of installation materially. The cane carrier is placed very high purposely to be able to lower it to suit circumstances. The carrier is driven by a small engine to enable the speed to be altered to suit the feed required.

JAMES H. FOGARTY,
16 John street, New York.

The Comparative Advantages of Spring Planting and Fall Planting on Louisiana Sugar Plantations.

[Discussion at the regular monthly meeting of the Louisiana Sugar Planters' Association, Thursday, May 12, 1898.]

President Judge Emile Rost in the chair, Secretary Reginald Dykers at the desk.

Under the head of new business the secretary read a letter from Mr. Wilbur F. Wakeman, general secretary of the American Protective League, with its accompanying papers, as appeared in our last issue.

The Chair—I will simply read to the asso-

ciation the resolution as it was passed at the last meeting. Hon. Henry McCall offered the following resolution: "That the secretary of the Louisiana Sugar Planters' Association be and is hereby authorized and instructed to communicate with the Hon. Wilbur F. Wakeman, New York, secretary of the American Protective Tariff League, with the view of having this association enrolled as a member and defender of said tariff league." That was the resolution adopted at the last meeting and the secretary communicated this resolution to Mr. Wakeman in New York, who considered it an application for membership. It was so intended by this association, and in answer to that resolution.

Mr. W. B. Schmidt—I think it is money well expended.

The Chair—The secretary writes "that by order of the executive committee I have the honor of entering the name of the Louisiana Sugar Planters' Association as a member of the American Protective Tariff League." They considered that as an application for membership, and they entered the name of the association on their list of members. They have enclosed a memorandum covering the initiation fee which represents all assessments for the year 1898, and the initiation fee, as you have heard, covers the contribution for the current year—it is \$100. Therefore, the chair considers that this association having been entered a member of the American Tariff League, all that is now necessary to complete the matter is a motion authorizing the treasurer of the association to pay, or remit, to the secretary, or treasurer of the American Protective Tariff League, the sum of \$100 for the initiation fee.

Mr. Schmidt—From the letter that was read I understand, aside from the initiation fee of \$100, which will cover the association's contribution for the current year, they will not call for this amount every year unless it is required.

The Chair—Their resolution seems to be about as follows: "Art. III of the Constitution, as amended at the last annual meeting, defenders on election (it seems they do not call us a 'member' of their league, but a 'defender'—this association becomes one of the 'defenders' of the league) shall pay a fee of \$100, and each successive year such part of \$100 as may be asked by the executive committee; but this obligation shall terminate by death, or by written notice of the subscriber." So the first year's expenses to join the Tariff League are \$100, and this covers all expenses for the year 1898. Gentlemen, a motion is now in order that the treasurer be authorized to pay the sum of \$100 for the initiation fees to the Tariff League.

On motion of Colonel Zenor, duly seconded, and there being no objection, it was unanimously adopted.

The Chair—The motion is now adopted, and the secretary will receive from the treasurer of the association the amount of the initiation fees and remit it to the Tariff League at New York.

At the last meeting of our association another resolution was passed referring to the death of one of the valued members and officers of this association—the death of Hon. Henry C. Minor. A committee was appointed to draft suitable resolutions, and these resolutions have been sent to our secretary, who will now please read them and the letter of Hon. Henry McCall which accompanied them.

The Secretary—You will note the resolutions are signed by Mr. McCall and Mr. Dymond.

Mr. Leonce M. Soniat, who is also a member of that committee, has not signed; but he was expected here this evening.

The Chairman—Gentlemen, the chair will instruct the secretary, if there is no objection on the part of the association, to sign the name of Mr. Soniat, the other member of the committee, to these resolutions, as they are already signed by the other two members. A motion is now in order for the adoption of these resolutions.

The chair would like to say a few words of personal tribute with respect to our late member, Hon. Henry C. Minor, before putting these resolutions to a vote. Mr. Minor, although not a frequent attendant at the meetings of this association, always manifested a great deal of interest in everything that transpired in the association. Mr. Minor was considered, and was known to the chair, as being one of the progressive planters of the State. The chair knows the progress made in the development of his estates in Terrebonne, from some twenty-five years ago, when it was then an old-fashioned kettle sugar plantation, and known to the chair as what was called "a good sugar kettle plantation" of the parish which had been making perhaps five or six hundred hogheads of sugar in the early '70s. Through Mr. Minor's energy, through his intelligent efforts, the same estates which in the '70s produced these crops, in the year 1897, with a first-class modern refinery, he produced a crop of between five and six million pounds of sugar. That alone tells of his success as a manager, and as a developer. Gentlemen, the motion is now before the association for adoption.

On motion of Mr. Schmidt, duly seconded by Professor Stubbs, it was unanimously agreed that the resolutions be adopted as read, spread upon the minutes of the association, published as a part of the official proceedings and an engrossed copy of same be forwarded to the family.

The Chairman—Gentlemen, when the last meeting was held, the topic for discussion at the May meeting was left to the chair, and the chair, after some hesitation as to whether the subject should be a mechanical subject, or an agricultural subject, decided that an agricultural subject should be presented to the meeting for discussion this evening, and that subject is "The Comparative Advantages of Spring and Fall Planting on Louisiana Sugar Plantations." Papers were to have been prepared on this subject, but the secretary informs the chair that no papers with the exception of the one prepared by Professor Stubbs, which the professor will read, have been received. We would all like to hear what Professor Stubbs has to say.

Professor Stubbs—Mr. President, last Monday I received a letter from your secretary, and, as usual, I told him I was willing to do all I could to advance the interests of the association, and I have hastily written a paper so that the printer will get me straight, because, frequently, when reading the discussion I see what I did not say, and what I did say is not clearly stated, so I put it down to-night on paper.

[Professor Stubbs here read his paper. It appeared in our last issue.]

The Chairman—You have the paper of Dr. Stubbs on the subject selected for discussion this evening; the subject is now before you for discussion.

Colonel Zenor—I move that the thanks of the association be tendered Professor Stubbs for his paper, and that it be published with the proceedings.

The motion was adopted.

The Chairman—The subject is now open for discussion—on the "Comparative Advantages of Spring Planting and Fall Planting on Louisiana Sugar Plantations." Colonel Zenor, have you any views to express on the subject?

Colonel Zenor—Mr. President, I don't think anything can be added to what Professor Stubbs has said that would enlighten us. I consider this one of the most important questions that pertains to the sugar industry; and yet we know very little about the solution of it. It would require years of experiment to test it thoroughly; but I am one of those who are strongly in favor of following along the lines as laid down in Dr. Stubbs' paper in favor of fall planting. There are others who still advocate spring planting; but, as I said, to determine the relative merits of either, it would

require several years of experiment, carefully noted, which Dr. Stubbs has the advantage of all of us in doing, and I think his opinion upon this question, like it is on a good many others, is worth more than all to the sugar planters in Louisiana, because I believe he knows more about it. The points he covered in his article I do not think can be added to very well by any discussion we might enter into. In speaking of this question with a planter the other day, my idea was that it was economy of labor (I am satisfied it is). I plant a little more acreage in the fall, with the same amount of cane, than I do in the spring, while this planter's idea was different. He said: "From one acre of cane I could plant a little more in the spring, provided my seed keeps." "Well," says I, "your seed is always good in the fall; and if your land is in proper condition, as stated in Dr. Stubbs' paper, and properly covered, I think the chances are in favor of his keeping the seed planted in the fall rather than in windrow, as we call it. This has been my experience. I plant as much as I can in the fall, and, as a general thing, get most excellent stands." This gives the matured cane that Dr. Stubbs alluded to. We find, I think, the fall plant is generally richer in sucrose than the spring plant; yet this gentleman said his results were just the reverse. I asked him if he got more sugar. He said he did not know that he did. That is the question we are driving at—to get the most sugar from an acre of land; and, as I said at the start, I don't think anything can be said or added that would enlighten us more than the paper Dr. Stubbs has read.

Mr. H. S. Crozier—Well, I will add just what Colonel Zenor has said. I consider Dr. Stubbs' contribution one of the most valuable papers read in this association. There is only one point I wanted to speak of, and that is this: I have had a good deal of experience in discussing the question with various planters, and I have found that the main question is the question of dry rot. Now, the experience of one man has demonstrated that that can be absolutely avoided and his plan is this: The majority of land that is intended to be planted in the fall is generally ploughed very deep, with large plows, and it takes an enormous amount of moisture to put the land in condition to give moisture sufficient to germinate the plants early enough or in season. The result is that he invariably plants right behind the plow, therefore he gets the moisture that is in the land the day the plow goes into it and sufficient to make the cane come up within ten days. Most any land is moist enough under this condition to make the cane come up. Another argument that he advances is that he can work one or two hours per day longer in the fall of the year.

The Chairman—Mr. Mann, you have had large experience in the matter of fall planting, and we would like to have your views on the subject.

Mr. Geo. E. Mann—Mr. President and Gentlemen: Professor Stubbs has given the data so well; his valuable paper covers everything so well that all I might say on the subject is this: I planted 175 acres in stiff lands last year. I bring this subject up because some years ago many would not think of planting in stiff lands in the fall. I have planted cane in the fall during the last twenty-five years; and always in stiff lands. I have dealt more in stiff lands than in sandy lands. During the last winter I planted 135 acres in the fall and left 40 acres for spring planting. The season on the lower coast was so wet this year that had I left my planting until spring, as I know some did, and good planters, too, I should now be in a bad condition.

The Chairman—You mean the season was wet for your spring planting?

Mr. Mann—Yes, sir. If the fall planting in stiff lands is placed three inches below the surface, there is no danger whatever. I have magnificent fall plant. My stand is magnifi-

cent, well advanced. It has had a second ploughing, and is way ahead of the 40 acres of the spring plant to-day. I was unable to plant my spring cane before the 10th or 15th of March, this year. Now, if I was not able to get my land in condition before that time, what a predicament I should have been in with my 175 acres. I should not have finished before some time in April; I should have been in an awful condition. Your paper, Professor, is the most valuable paper that has ever come under my observation in all my days.

The Chairman—They claim this season, so far, has proved in favor of fall planting, even more than usually.

Mr. Schmidt, have you any views to give the association on this subject?

Mr. W. B. Schmidt—Mr. President and gentlemen, you know that I do not live on a plantation; but I must say that the paper read by Professor Stubbs is certainly very valuable, and I hope will be read by every planter in the State. The information it contains is certainly very important and should be read by all planters. I know Professor Stubbs is very earnest in his undertakings and devotes a great deal of personal attention to matters such as that under discussion this evening, and when he presents an article you can depend upon its containing information and data which has been arrived at solely by his own personal knowledge. Were I living in the country, as many planters do, I do not see how I could get along without reading the journals published in the interest of the sugar planters. They contain a great deal of valuable information; and I have no doubt but that many planters have already been greatly benefited by the publication of these papers; such, for instance, as the paper presented by Dr. Stubbs this evening. I believe myself, as he has explained, that fall planting is a great advantage on my place. I have always planted in the fall—and we do it on well drained lands—lands that are well pulverized—and we never fail to make a crop. Of course we plant deeper than we would were we to plant in the spring. There is no danger of the cane sprouting before you remove it from the soil and carry it to the place where you intend to plant. Again, in my opinion, it is a great deal safer to plant in the fall.

Mr. Mann—Gentlemen, I will say that my experience has been that the tonnage from fall planting has been larger—we have better results in the sucrose; more percentage.

The Chairman—That is the result you have noticed?

Mr. Mann—A larger tonnage. I have never had to regret any fall planting, if it was properly done; I would like to plant all in the fall if I could.

Mr. H. G. Morgan, Jr.—I have nothing to say about fall planting or spring planting; have not had much experience in planting; but I am sorry I did not hear the doctor's paper this evening.

The Chairman—Does any one else desire to take part in this discussion? The chair will state, in conclusion, that the principal objection urged by planters to fall planting was the danger of missing a stand in the cane, either from a wet winter or from dry rot. The chair will state that from personal experiences, in the course of ten years, there was only one winter where a stand failed in fall planting; that failed from dry rot, and undoubtedly failed because the plant cane at the time of planting was not rolled and was not properly cared for, and from the drought for several weeks after the time of planting. When the winter passed over this cane and the spring season came on, there was not more than a half stand, or barely a half stand. That was the only instance in the experience of the chair where fall planting failed in a period of ten years. During all the other seasons, the fall plant held its own and averaged as well if not better than the spring planting. As far as tonnage is concerned, the chair's experience is

that the greatest tonnage of cane was from spring planting. Now, whether that gave the greatest amount of sucrose or not, the chair is not prepared to say; but it would seem more rational to suppose that when cane is planted in October, to be passed through the mills twelve or fourteen months afterward, it certainly has a chance to reach a higher percentage of sucrose than when it is planted in March or April, to be passed through the mills six or seven months afterward. In other words, the more time you give cane to reach maturity, the greater the results that you have a right to expect. We know that in Mexico or in Cuba, or in the Sandwich Islands, where we hear of cane giving 18 and 20 per cent. sucrose, that is not done by six months' growth, nor by eight months' growth. It is done by a growth of twelve, fifteen or eighteen months. That is as far as I can learn; Professor Stubbs can correct me if I am wrong in my discussion.

Professor Stubbs—You are correct.

The Chairman—Even in Mexico, where they claim to obtain as high as 20 per cent. sucrose, the cane is not ground there in less than twelve to fifteen months. If we could get cane in Louisiana twelve or fifteen months, we would be satisfied with 15 to 16 per cent.

Gentlemen, the discussion of the subject is now closed. The next matter before the association is the selection of a subject for discussion at the next meeting, which will be the meeting in the month of June.

Mr. H. S. Crozier—Mr. Chairman, I meet a great many planters, traveling around, and they tell me they would like to attend the meeting, but find the time set for the meetings a little inconvenient. Many of the planters are in the city around the first of the month, or the last of the month, and can not come back. I would suggest that possibly it would be better to change the date of the meeting—have it near the end of the month, or close to the end. Most of the planters have business in town about that time.

The Chairman—The chair will state from the earliest organization of this association, it was found advantageous to hold the meetings of the association in the beginning of the month; and it was some time after the organization of the Sugar Planters' Association that the second Thursday was suggested as being better and more suitable than the first Thursday. The chairman does not remember the reasons urged in favor of the second Thursday, but as far as the convenience of the planters was concerned, the chairman will state very frankly that in this year of our Lord 1898, the convenience of the planter is about as difficult to ascertain as it was in the year of our Lord 1878; in other words, the planter has business in the city at various times, and at different periods each month. Some come in one day of a week, some another day, and it would be impossible to ascertain the days that would suit a majority of them; and the Sugar Planters' Association has selected the second Thursday, thinking that would interfere as little as possible with their engagements or occupations, and would afford an opportunity to all planters to be present.

Colonel Zenor—I would add that some come on the day of our meeting and do not come. There are plenty of planters who come to town to attend to their ordinary business, and won't come around to the meetings. I could mention several of them.

Mr. W. B. Schmidt—I don't think changing the meeting would add to the attendance.

Colonel Zenor—Not a particle.

The Chairman—The chair will state that a great many planters who take an interest in the association, and who follow the proceedings, seem to think they can get all the information they want and all the benefits of the association by reading all that there is in the morning papers, or those who subscribe to it, in THE LOUISIANA PLANTER, the official organ of the association. They seem to think that

as good as attending the meetings. That seems to be the idea. With a membership roll of over one hundred members, it has been very difficult for us to get up an attendance of over twenty or twenty-five planters. When we get as high as twenty or twenty-five we have a very good meeting, as we think. We have tried for many years to improve on that. The chair is sorry to say that no remedy has been found yet to improve the attendance. Does Mr. Crozier make a motion to the effect that we change our day of meeting?

Mr. Crozier—I will withdraw my motion.

Mr. Schmidt—I don't think it would suit Professor Stubbs were we to hold our meeting later in the month. You know we depend a great deal on him for information. I would ask Professor Stubbs if a later day would suit him.

Professor Stubbs—My engagements bring me to Calhoun the last week of each month, and during the first part of the month I am in Baton Rouge, and I would be cut off from attending your meetings if they were held in either of these weeks. While I would dislike very much to be cut off from your meetings I would be perfectly willing if, by holding them at a different time than the present, the attendance could be increased; if the change would accomplish any good; but, of course, I want to be here if I can.

The Chair—The association considers that a meeting without Dr. Stubbs is not a complete meeting. If there is no other business before the association, the chair will state, at the suggestion of Dr. Stubbs, Professor Blouin has offered to read a paper at the June meeting of this association on the use of lime and sulphur in the sugar house. The subject, which was discussed this evening was an agricultural one, and according to the rule adopted by the association, we discuss an agricultural subject at one meeting and a mechanical subject at the following meeting. The matter of lime and sulphur, although not strictly mechanical, pertains more to the manufacture of sugar, and would then come in properly as a subject for discussion. Is there any other subject any member of the association would present in preference to it?

Mr. Schmidt—The subject suggested would be very interesting.

Professor Stubbs—Mr. President, for the last two years we have been making some very accurate experiments, at considerable expense and time, in the sugar house, in performing experiments, utilizing different amounts of both sulphur and lime, together with experiments incidental to phosphoric acids and other reagents. We are anticipating publishing a bulletin on that subject; but before doing so it was thought well to have Mr. Blouin read the results before this association. This was also in response to an urgent request from your president and secretary that the station should take as large a part in these discussions as possible.

Mr. Schmidt—I hope the subject will be adopted.

The Chairman—The subject is an important one, for there seems to be throughout the State, among sugar houses—sugar factories—a difference of opinion, or a difference of practice, in the application of lime and sulphur, which ought to be accounted for, and which ought to be explained. The chair states, from personal knowledge, that the employment of lime, and of sulphur especially—no, of lime especially, at the rate of so many pounds to the ton of cane, varies in some factories to an astonishing degree. The chair has heard where the output daily, the output in tons of cane, was three hundred tons, and the consumption, of lime was three barrels. The chair has heard of other factories doing exactly the same amount of work where the consumption of lime was eight barrels; and, again, one factory on Bayou Lafourche, where the output was eight hundred tons of cane a day, passed through the mill, the consumption of lime

every day was forty barrels, which would be one barrel of lime to twenty tons of cane. These figures go on indefinitely.

Professor Stubbs—They are unquestionably right. They appear to be incredible, I confess. It depends entirely, as Mr. Blouin will show, on the quantity of sulphur used. We can sulphur your juice to taking ten times the quantity of lime in one instance as in another.

The Chairman—I was told that this enormous use of lime was called, or was under what was called the German process. What that is, I do not know. I hope Professor Blouin will enlighten us on that subject, as well as on the different methods and different processes of using lime in the factories.

There being no objection, the subject of the "Use of Lime and Sulphur in Sugar House Work" was adopted as the topic to be discussed at the June meeting.

The Unconsidered Wealth of the West Indies.

The *Daily News* reviews Dr. Morris's recent report on the West Indies thus picturesquely:

One has only to turn for a few minutes to Mr. Froude Kingsley, to the sumptuous volume of *Lady Brassy* to realize the manifold beauties, the marvelous richness of those islands in the tropic seas of the Atlantic which are called West Indies. Mr. Froude depicted them in some of his most brilliant and fascinating pages; Charles Kingsley was sighing all his strenuous life for a look at them, and called his book "At Last." Tennyson often turned longing eyes toward them, as we learn in his son's biography, though he has painted the tropics so exquisitely in "Enoch Arden." The slender coco's drooping crown of plumes, The lightning flash of insect and of bird, The lustre of the long convolvulus That coil'd around the stately stems.

Listen to Kingsley's description of a West Indian forest:

In Europe a forest is usually made up of one dominant plant—of firs or pines, of oaks or of beeches, of birch or of heather. Here no two plants seem alike. Stems rough, smooth, prickly, round, fluted, stilted, upright, sloping, branched, arched, jointed, opposite-leaved, alternate-leaved, leafless, or covered with leaves of every conceivable pattern, are jumbled together till the eye and brain are tired of continually asking, "What next?" The stems are of every color—copper, pink, gray, green, brown, black as if burnt, marbled with lichens, many of them silvery white, gleaming afar in the bush, furred with mosses and delicate creeping film ferns, or laced with the air roots of some parasite aloft.

Or to one of Froude's—dip into him whenever you will:

Let man be what he will, nature in the tropics is always grand. Palms were growing in the greatest luxuriance, of every known species, from the cabbage towering up into the sky to the fan palm of the desert, whose fronds are reservoirs of water. Others in shape or foliage far displaced the most splendid ornaments of an English park. Again, you saw forms which you seem to recognize, till some unexpected anomaly startled you out of your mistake. Dispersed among all the imperial beauties were spice trees, orange trees, coffee plants and cocoa. Prettiest and freshest were the

nutmegs, which had a gleam all to themselves, and perfumed the surrounding air.

If you care not for gaudy luxuriance, and fancy romance and adventure, turn to the stories of Drake, of Rodney; read once more the *Lay of the last Buccaneer*, sung by Kingsley, who

* * * "Sailed against the Spaniard with his hoards of plate and gold.

Which he wrung with cruel tortures from Indian folks of old;

Likewise the merchant captains, with hearts as hard as stone,

Who flog men and keel-haul them and starve them to the bone.

Oh, palms grew high in Aves, and fruits that shone like gold,

And the colibris and parrots were gorgeous to behold,

And the negro maids to Aves from bondage fast did flee

To welcome gallant sailors a-sweeping in from sea."

However you regard them, the West Indies will provide us with a thrill—of pleasure, or horror, or wonder.

From poets and buccaneers to blue books may seem a far cry, but, as has been sometimes remarked, there is concealed beneath the dull, prosaic productions of our government officials a wealth of romance and human interest. We refer particularly to the report of the gentlemen who inquired into the commercial decadence of these wonderful islands, which costs us so much blood and treasure to get. Sugar, the aristocrat of West Indian products, was being driven out of the market by the democratic beet, bounty-fed, and competition all round the world; in France and Germany, in America, in India, Queensland, Mauritius, Fiji, and the rest. The West Indies were in despair. What was to be done? Well, sugar is to be bolstered up for awhile, as we all know, and the West Indies are strongly advised to turn their attention to the cultivation of other industries. It is the amazing wealth of these which are dealt with so admirably by Dr. Morris, the assistant director of Kew Gardens, in a voluminous appendix to this remarkable blue book. This appendix he has expanded, and it now appears in extenso in the current number of the "Kew Bulletin."

Dr. Morris accompanied the commissioners on their visits to the various islands; he had lived for years in one or two of them; he is a botanist, a chemist, a highly-trained expert, in fact with the exact mind of the scientist. Such men are constantly being trained at those famous gardens of Kew, the extent of whose work, so vastly important to the imperial welfare, is so little known. We have no space to deal with the multitude of facts and figures with which this issue of the "Bulletin" fairly bristles. We can only say that, matter-of-fact though it be, its pages conjure up pictures of fresh markets whose possibilities set the lay mind reeling. British Guiana, Trinidad and Tobago, the Windward Islands, the Leeward Islands, Barbados, Jamaica—upon the resources of all the famous groups which stud these seas like so many jewels, we

find fascinating details. Take that vast territory we call British Guiana, for instance. The land here, says Dr. Morris, is among the richest in the tropics, and it is almost inconceivable that such should have been so long neglected—it is as large as Austria.

When the suitability of these lands for tropical cultivation is known abroad some of them will be taken up by Europeans with capital, prepared to invest it in establishing plantations of coffee, cacao, spice and fruit, on the same lines as those in the other parts of the tropics. A considerable amount of English capital is at present diverted to foreign States, from a mistaken idea that there is no suitable outlet for it in our own colonies. From a somewhat extensive and intimate acquaintance with the cultural industries carried on in various parts of her Majesty's possessions I am able to state that I know nowhere of such an extensive area of rich and fertile lands, with a comparatively healthy climate, and within easy reach of such good markets as those crown lands of British Guiana. They can grow nearly every tropical product in demand, either in the new world or old.

This is surely a glowing statement to come from a man who is sure of his facts.

We all know the irresistible fascination which Robinson Crusoe's plain narrative has had upon generation after generation of the human race. The castaway finds upon his solitary island all that a man needs for his wants, and much more. Crusoe's hairy figure is ever rising up before us as we read these business-like pages. You wander with Dr. Morris into one of these forests of the tropics, peopled with strange trees, all aglow with the gorgeous blossoms, peopled with life in infinite variety—birds, the most marvelous insects, things creepy crawly—where the air is full of odors. Here is the tree on which gutta-percha grows; here is the india-rubber tree; here is the cocoanut; here is the tree whose bark yields medicine; here is the tree which resists the penetrating teredo. Dye woods, bitter-wood, lance, wood spars, satin-wood, ebony or color wood, walking sticks, divi-divi, tamarinds, sarsaparilla, nutmegs, medicinal plants, essential oils, spices, cardamoms, black pepper, cinnamon, vanilla, cocoa, sisal hemp, cassava, chillies, castor oil, cinchona, cocoa, plantains, cocoanuts, limes, coffee, arrowroot, sweet potatoes, yams, beans, aloes, ginger, oranges, bread fruit, gums, resins—all abound in these islands of Paradise. Turn to the azure seas in which they are set, and you find flying fish—they catch off Barbadoes alone nearly £20,000 worth in a year. The roe of the sea urchin is said to be delicious. Turtle, snapper, grouper, lobster, crayfish—who can say nay to them?

Did not Robinson Crusoe also manage to grow himself tobacco to solace himself with at last? Dr. Morris speaks well of the chances of growing fine brands as one of many possible subsidiary industries which the present crisis may create. So said Mr. Froude, who was no scientific reporter, but a serene and cynical observer of the works and ways of man on this spinning globe. "I asked Sir T. Hooker," he says, "the chief living authority in such matters, why Cuba was allowed the monopoly of

delicate cigar tobacco—whether there were no other countries where it could be grown equally good. He said that at that very moment cigars as fine as the finest Havana were produced in Jamaica."

It is to fruit that many look as the possible salvation of these colonies. The story of Captain Bush's enterprise, told by Dr. Morris, is a veritable romance of trade. In 1869 the captain loaded seven vessels with it as an experiment. In 1879 the value shipped was a little over £20,000 worth. In 1889, owing to a subsidy of £5000 granted by the government to a steamship company, it had increased to a value over £320,000; and in 1895-96 this sum had increased again to over half a million pounds sterling. The fruit consisted chiefly of bananas, cocoanuts, oranges, grape fruit, shaddocks, tangerines, limes, lime juice, pineapples, tamarinds and kola nuts. From the lime alone, in the form of lime juice, oil of limes, otto of limes, lime fruit, and lime pickled, Dominica gets something like £20,000. In Antigua the cultivation of the pineapple has formed the only minor industry.

Why is it, then, seeing the prodigal profusion with which Nature has scattered her gifts upon these islands, that man has put his faith in sugar alone? Of course, in the days of Tom Cringle and Aaron Bang, the good old days when planters were the kings in the islands, and kept slaves and dined off gold plate on the best, the profits on sugar were nothing less than huge. They had it all their own way. And their descendants have wrung their hands and bemoaned the degenerate days, but still they stuck manfully by sugar. It was still sweet to them. A few of the more spirited rose to the needs of the times and dabbled in novelties. Highly favored are our West Indian possessions in many respects, in luxuriant growths, in sun, and light, and soil, yet the climate is not one which breeds energy, initiative, persistence. That must be one reason of their want of any notable success. The other, says Dr. Morris, is due to a want of knowledge of even the simplest elements of horticultural methods. An experiment is often undertaken by men with no experience whatever of the plants they wish to cultivate, but who yet undertake to produce crops requiring great skill and judgment. Such experiments inevitably end in failure. Again, subsidiary industries are only thought of when there is a threatened collapse of the staple industry. At such times there is usually an inconsiderate rush for some industry most in favor at the moment, prices fall, and the investment is immediately abandoned as unproductive. The failure thus insured naturally tends to throw discredit on future ventures, and that particular industry is regarded, often undeservedly, as hopeless. Much educational work is already done by the various botanic gardens which are established in various islands. These are miniature Kews. The station at Dominica alone in 1896 distributed no less than 42,000 economic plants to those who required them for experimental purposes. Cacao plants in pots cost a little over a farthing each; coffee plants from the beds cost less than a farthing; and nutmeg plants were sold in pots for a

penny. Of the great value of the official experimenting stations Dr. Morris speaks highly, and with profound knowledge. At the request of the chairman of the commission he has prepared a scheme for a special department of economic botany, which shall—

1. Supervise and extend the work of the existing stations.
2. Start industrial schools for training boys in agricultural pursuits.
3. Encourage theoretic teaching of agriculture in agricultural pursuits.
4. Promote teaching of scientific agriculture in colleges and schools.
5. Organize horticultural shows and exhibitions of implements and machinery for cultivating and curing tropical products.

As an instance of the extraordinary mixture of peoples whom we govern, and the pressing on of the colored races are mentioned (apropos) that apprentices from Lagos were lately trained at Jamaica for agricultural service on the west coast of Africa. In our own garden at Kew you meet them at work, and of our museums they are peristent haunters. Verily does old England bear stupendous burthens upon her brawny shoulders.

Dr. Morris is not optimistic, he is not pessimistic—he only says: "Work and hope."—*Demerara Chronicle*.

Death of C. F. Havemeyer.

C. F. Havemeyer, son of the late Theodore Havemeyer, one of the sugar kings, recently died at his home at Roslyn, Long Island, from the effects of a pistol wound in his head, supposedly inflicted by his own hand. He was a man of great wealth, with an interesting family, and it is a mystery to all who knew him why he should commit suicide. Many of his friends assert that his death was the result of an accident rather than intention, as he was in perfect health at the time, had always been of sound mind, and was of a cheerful disposition, with wealth sufficient to supply every material want. His death was a great shock to the business and social circles in which he moved and mingled.—*Criterion*.

Mr. George P. Anderton, of Concession plantation on the Lower Coast, returned during the past week from a combined business and pleasure trip to Greenville, Miss., and Birmingham, Ala.

Among the most enterprising and progressive planters in the State are Messrs. J. P. Kemper and W. Y. Kemper, who together run the Glencoe plantation. They have demonstrated an unusually high order of ability in developing the resources of Glencoe, and bringing its results higher and higher toward perfection.

Among the "old reliables" upon whom the prosperity and success of sugar making operations at the Caffery central factory largely depend must be mentioned Mr. A. W. Ohlmeyer and his two sons, Messrs. William Ohlmeyer and A. J. Ohlmeyer. These gentlemen have been the vacuum pan sugar boilers at the Caffery for a number of years, and always achieve excellent results.

MAY 21.

WEEKLY MARKET REPORT.

1898.

SUGAR.	May 14.	May 16.	May 17.	May 18.	May 19.	May 20.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
Open Kettle.								
Choice.....	4 @ 4 1/2	4 @ 4 1/2	4 @ 4 1/2	4 @ 4 1/2	4 @ 4 1/2	4 @ 4 1/2	4 @ 4 1/2	
Strict Prime.....	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	
Prime.....	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	
Fully Fair.....	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	3 1/4 @ 3 1/4	
Good Fair.....	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	
Fair.....	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	Steady.
Good Common.....	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	
Common.....	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	3 3/8 @ 3 3/8	
Inferior.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugal.								
Plant'n Granulated.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Off Granulated.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice White.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Off White.....	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	Steady.
Grey White.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow.....	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	
Prime Yellow.....	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	
Good Yellow.....	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	4 1/4 @ 4 1/4	
Seconds.....	2 1/2 @ 3 3/8	2 1/2 @ 3 3/8	2 1/2 @ 3 3/8	2 1/2 @ 3 3/8	2 1/2 @ 3 3/8	2 1/2 @ 3 3/8	2 1/2 @ 3 3/8	
MOLASSES.								
Open Kettle.								
Fancy.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy.....	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	
Choice.....	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	
Strict Prime.....	12 @ 11	12 @ 11	12 @ 11	12 @ 11	12 @ 11	12 @ 11	12 @ 11	
Good Prime.....	12 @ 10	12 @ 10	12 @ 10	12 @ 10	12 @ 10	12 @ 10	12 @ 10	
Prime.....	12 @ 9	12 @ 9	12 @ 9	12 @ 9	12 @ 9	12 @ 9	12 @ 9	
Good Fair.....	12 @ 8	12 @ 8	12 @ 8	12 @ 8	12 @ 8	12 @ 8	12 @ 8	Steady.
Fair.....	12 @ 7	12 @ 7	12 @ 7	12 @ 7	12 @ 7	12 @ 7	12 @ 7	
Good Common.....	12 @ 6	12 @ 6	12 @ 6	12 @ 6	12 @ 6	12 @ 6	12 @ 6	
Common.....	12 @ 5	12 @ 5	12 @ 5	12 @ 5	12 @ 5	12 @ 5	12 @ 5	
Inferior.....	12 @ 5	12 @ 5	12 @ 5	12 @ 5	12 @ 5	12 @ 5	12 @ 5	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Centrifugal, 96.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated.....	5.15 @ —	5.15 @ —	5.15 @ —	5.15 @ —	5.08 @ —	5.08 @ —	4.23 @ —	Quiet.
Standard A.....	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.10 @ —	
Cuba, 96, Ctf.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.....	12s. 8d.	12s. 8d.	12s. 8d.	12s. 8d.	12s. 8d.	12s. 8d.	10s. 6d.	Firm.
A. & G. Beet.....	9s. 6d.	9s. 6 1/2 d.	9s. 6 1/2 d.	9s. 6 1/2 d.	9s. 6 1/2 d.	9s. 6 1/2 d.	8s. 8 1/2 d.	Steady.

NEW ORLEANS REFINED

Cut Loaf.....	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 4 1/4	
Powdered.....	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 4 1/4	
Standard Granula'd.....	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 4 1/4	
Candy A.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C.....	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 4 1/4	Strong.
Crystal Extra C.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	May 11.....	Tons	848,405
At four ports of Great Britain to.....	May 7.....	"	77,500
At Havana and Matanzas to.....	May 11.....	"	88,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAY 20, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received.....	502	14,063
Sold.....	502	13,354

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO MAY 20, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received.....	28,114	1,487,183
Sold.....	28,114	1,422,091
Received same time last year....	85,780	1,215,180

MAY 21.

WEEKLY MARKET REPORT.

1898.

RICE.	May 14.	May 16.	May 17.	May 18.	May 19.	May 20.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, 9 bbl.....	2 25 @ 5 85	8 00 @ 5 85	8 00 @ 5 85	8 00 @ 5 85	8 00 @ 5 85	8 00 @ 5 85	— @ —	Strong.
CLEAN, Fancy.....	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2	5 1/2 @ 6	
Choice.....	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 6	5 1/2 @ 5 1/2	Quiet.
Prime.....	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	4 1/2 @ 5	
Good.....	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	4 1/2 @ 4 1/2	
Fair.....	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	5 1/2 @ 5 1/2	4 1/2 @ 4 1/2	
Ordinary.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Common.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —	Nominal.
Inferior.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
No. 2.....	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	2 @ 2 1/2	
BRAN, 9 ton.....	12 50 @ 13 00	12 50 @ 13 00	12 50 @ 13 00	12 50 @ 13 00	12 50 @ 13 00	12 50 @ 13 00	12 00 @ —	
POLISH, 9 ton.....	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	17 00 @ 18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK ENDING MAY 20, 1898.

	SACKS ROUGH.	BBLs. CLEAN.
Received.....	1,079	11
Sold.....	592	931

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO MAY 20, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BBLs. CLEAN.
This year.....	466,215	8,081
Last year.....	875,798	9,490

Sugar.

The local sugar market was steady at the end of the week, and a fair demand prevailed. Receipts from plantations were fairly good.

Molasses.

No open kettle goods in first hands. Centrifugals steady.

Rice.

But little business is chronicled in either rough or clean rice. The market is strong, and offerings are promptly absorbed at full prices. Arrivals from plantations are small.

Sugar in London.

The position of the market has been strengthened since last week by the publication of the figures for the European sowings, given below, and general confidence is felt in the present very moderate range of prices. Beet 88 per cent. sugar f. o. b. for prompt shipment is quoted as follows:

	Per Cwt.
1898.....	9 3
1897.....	8 10 1/2
1896.....	12 1 1/2
1895.....	9 10 1/2
1894.....	11 9
1893.....	18

It will be seen that with the trifling exception of last year at this time sugar has not been so cheap in May as it is now. The general position, therefore, points rather to higher than to lower prices. The London market, nevertheless, this week has been distinctly cheaper.

Heavy tenders of sugar sold for delivery during the present month have checked the recent upward movement and have caused a decline, so far as speculative beet and foreign white sugars are concerned. A cessation of demand from the trade has also brought about a quieter feeling, but, after the last volume of business which has been transacted during the

last fortnight, this is not surprising. It must be borne in mind, however, that it was the declaration of war which first started the upward movement in sympathy with the appreciation in value of other foodstuffs, and that while sugar has gone back slightly in price, other important articles, such as wheat, are considerably dearer this week. It is not too much, therefore, to expect some recovery when the temporary pressure to sell has passed away. A decline in value has also taken place in the American markets, but for what reason it is difficult to say, as no very recent returns of stocks and consumption are available. As compared with the demand for beet, the cane market here has shown great firmness, low brown refining kinds being held for very full prices, while grocery crystallized, which continues in demand and also in short supply, again shows a slight advance on the lower and medium qualities. The imports of crystallized raws to London for the week ending 5th inst. amounted to 1041 tons, and for this year to 10,590 tons, against 14,029 tons in 1897.

Owing to the war, increase in freights and cost of material, an important rise has taken place in glucose, which for the moment is comparatively scarce on the spot, and supplies of which are likely to be irregular for the next few months. There is no reason to suppose, however, that shipments will actually cease, and the invocation of the *force majeure* clause is, to say the least of it, premature.—*Produce Markets Review*, May 7.

The Rice Market.

Increasing activity is again to be noted in all styles of foreign, the week making the highest score in sales of any equal period since the opening of the present season. The demand is widespread, from every point of the compass and further enlarged by purchases on government account for use in the army and navy. Common to fair grades, by reason of being relatively cheaper, are commanding the larger patronage. There were unusually liberal arrivals the past week and those who had been predicting "the long expected time draws near when the supply will be ample," jumped to the conclusion that it had already been reached. Disappointment, however, waited

on them, as no sooner were parcels landed, than they went promptly from wharf to fill orders taken a fortnight or more ago.

Among the novelties in present offerings is Japan, grown in Italy. It is of fine color and grain and being sold at fraction off "the real thing" is commanding considerable attention. Advices from the South note fair local movement in domestic and an enlarging call in the foreign. Cables and correspondence from abroad show no change for the better in the statistical exhibit, but rather the worse. The midmonthly account of stock is less favorable than at any time since the opening of the far East crops. Europe has received since January 1, 3,196,040 bags (2 cwt. each), against 4,195,976 bags same time last year. Amount afloat, present date, 830,744 bags, against 1,124,920 bags last year. As might be expected under such radical shortening of receipts, spot stocks are nil and the forward supply totally inadequate to meet usual requirements the coming quarter.

With such conditions it is only natural that sellers should "rule the roost" without contest; buyers compelled to play second fiddle whether they will or no. As heretofore, the main current of business runs on goods from steamers due the coming month and even later, which fact should not be lost sight of, as with cargoes finding sale before arrival, accumulation of stock is prevented and reaction in price rendered impossible or at least improbable.

Talmage, New Orleans, telegraphs Louisiana crop movement to date: Receipts, rough, inclusive of amount carried over, 535,435 sacks; last year, 568,515 sacks. Sales, cleaned (est.) 120,250 barrels; last year, 106,450 barrels; steady demand in all styles domestic and foreign.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 59,470 barrels; sales, 58,930 barrels; fair demand for home sorts; principal movement in foreign.

Mr. A. V. Pintado, who was last year at the Bethia place of Hon. Donelson Caffery, was this season at the Alix plantation, where he had charge of the boiling department. Mr. Pintado is well known all through the sugar district as a most skilful and successful sugar boiler.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A SUGAR OR MOLASSES BARREL maker would like a position on a plantation, or in the city; can furnish references. Address **LOUIS ROGERS**, 2901 Bienville street, city. 5-21-98

WANTED—POSITION BY A FIRST-CLASS sugar chemist of long experience, competent to take charge of any department of sugar manufacture; excellent recommendations. Address **CLEMENS DOMES**, 147 Green street, Brooklyn, N. Y. 5-19-98

WANTED—A FIRST-CLASS ASSISTANT vacuum pan sugar maker; give references. Address, Lock Box 193, Patterson, La. 5-19-98

WANTED—A TECHNICAL, EDUCATED MAN, with three years' experience in Europe, and competent to conduct a beet sugar factory, wants any position where he can make himself useful. Address **HOBROC**, 46 Cabot street, Boston, Mass. 5-20-98

WANTED—A POSITION AS TRAMWAY EN-gineer. Address **A. E. HUTCHINSON**, 740 Nashville avenue, New Orleans. 5-20-98

WANTED—A POSITION AS SUGAR HOUSE engineer, for construction, repairs and general work. Satisfactory references as to ability and character. Address **A. S. ARMSTRONG**, 1026 Jena street, New Orleans. 5-10-98

WANTED—A POSITION AS RAILROAD trackman on some plantation. Address **E. St. Bernard P. O.**, La. 5-10-98

WANTED—POSITION AS WEIGHER OR SIM-ilar for coming season, by experienced man of 35; first-class recommendation; well posted on general office work; also open for any kind of employment at once. Address **E. Schuster**, merchant, Hohen Solms P. O., Ascension parish, La. 5-3-98

WANTED—A POSITION BY A FIRST-CLASS sugar-house and refinery engineer to do repairs and take off crop; has fifteen years' experience. Address **D. W. B.**, No. 720 Valmont street, New Orleans, La. 5-3-98

WANTED—BY A FIRST-CLASS MACHINIST and engineer, fifteen years' experience in refineries and sugar houses; can give first-class reference. Address **HENRY WESTON**, 740 Poydras street, New Orleans, La. 4-26-98

WANTED—BY A FIRST-CLASS OPEN KET-tle, open pan and vacuum pan sugar maker, a position for this coming grinding season; best of references can be given. Apply to **FELIX SERPASSE**, St. Bernard P. O., La. 4-27-98

WANTED—POSITION ON A PLANTATION AS assistant manager, time or book-keeper; could take charge of a stable; I am a married man, 30 years old; have good references as to habits and capability; all letters will receive prompt attention. Address **WILLIAM DETTRICH**, Hammond, La. 4-23-98

WANTED—A POSITION WITH A LARGE firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address **SUGAR MAKER**, care this office 4-16-98

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address **C. H. B.**, 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—A POSITION AS CLERK OR AS-sistant overseer, on sugar plantation; can give best of references as to ability and character. Address 500, care **PLANTER**.

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommends the best in the State. Address **J. FRANZ**, Eureka, St. Louis county, Mo. 4-6-98

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address **Mrs. J. S. DARRAGH**, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address **J. K. C.**, 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS IN the country near the city by a young lady; good references and reasonable terms; small children preferred. Address **GOVERNESS**, this office. 4-8-98

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 300, this office. 4-9-98

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address **GEO. CODE, Sr.**, No. 4730 Tchoupitoulas street. 3-29-98

WANTED—A CARPENTER, WITH LARGE EX-perience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. **C. A. O'KEEFFE**, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address **S. E. MOORE**, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address **T. P. DAKIN**, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EX-perience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address **SUCCESS**, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address **STABLEMAN**, care this office. 3-17-98

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, **C. F.**, 1304 N. Delaware street, Indianapolis, Ind. 3-26-98

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. **H. J. SAVOY**, Palmettoville, La. 3-18-98

WANTED—A POSITION AS CHIEF ENGI-neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address **A. B. W.**, 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES PO-sition at once; has new process of cultivation and clarification; write for further particulars, **W. J. Z.**, 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address **W. C. H.**, this office. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address **F. G. LORENZ**, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address **A. P. R.**, care **LOUISIANA PLANTER**. 2-21-98

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address **F. F. MERWIN**, Le Compté, La. 2-23-98

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address **PLANTER**, 518 and 530 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address **LAWRENCE M. DOOLEY**, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address **L. L. D.**, 4301 N. Peters street, City. 2-8-98

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address **H. G. Hill**, Ponchartrou, La. 3-26-98

WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assistant boiler in some large factory. Best of references given. **W. B.**, Box 62, Donaldsonville, La. 3-31-98

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER, A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

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Annual Report to the Hawaiian Minister of Finance.

THE PLANTER is indebted to the Hon. F. B. McStocker, Collector General of Customs for the Republic of Hawaii, for a copy of his annual report to the Hawaiian Minister of Finance. The report is a very comprehensive one, covering the imports and exports of the Hawaiian Islands for the year 1897.

One of the most interesting features to us in Louisiana is the statement of the exports of sugar from the Hawaiian Islands for the year 1897. The quantity is placed at 520,158,232 pounds or 260,079 short tons, valued at \$15,390,422, or slightly under 3 cents per pound. Of these sugars those sent to the United States, 66.72 per cent. were shipped to the Pacific ports, and 32.90 per cent. to the Atlantic ports and .38 per cent. to various other countries. We thus see that under the workings of the reciprocity treaty we practically get all the sugars that are produced in Hawaii, less than half a per cent. having been sent to Australia, New Zealand, the islands of the Pacific, Japan, China and Canada. In like manner, out of 5,500,000 pounds of rice exported the Pacific ports got practically all of it; some \$519 worth having been sent to the islands of the Pacific.

The total exports from the Hawaiian islands during the year 1897 aggregated \$16,021,775, of which \$15,962,000 came into the United States.

The entire imports into the Hawaiian islands for the year 1897 amounted to \$8,838,203. Of this 73.58 per cent. came from the United States Pacific ports, 3.36 per cent. from the United States Atlantic ports, or a total of about 77 per cent. of all of their imports came from the United States. It will thus be seen that the Hawaiian islands exported over \$16,000,000 of their own productions and imported less than \$9,000,000 from all other countries, leaving a

balance of trade to their credit of over \$7,000,000 for the year 1897, rather a profitable year we should say for the islanders.

The Yield of Low Grade Sugars.

As many of our Louisiana sugar plantations will soon be working off their low grade sugars, it becomes an interesting question as to how the greatest yield of these sugars can be obtained from molasses of any given purity. On one of the leading Hawaiian plantations an experiment has been made with a tank 90 feet long, 14 feet wide and 13 feet deep, the bottom having a fall from the outside to the centre. This tank has a division through its centre, lengthwise, and these two halves are again divided up into twelve compartments each, making twenty-four in all. It was thought better to keep the molasses after boiling to sugar proof in a compact body rather than to spread each strike over a large surface, as is commonly done where it is run into cisterns. With these smaller compartments any one of them can be quickly filled, and, if necessary, sugars can be taken from some of them while others are being filled with newly boiled stuff.

In this particular case a car is used to convey the *masse cuite* from the tank to the mixer, and it is thought that a Magna pump would answer as well. Each compartment has a 12-inch valve in the bottom, through which the *masse cuite* is discharged into the car, a track running under the centre of the tank its full length. The discharge valve is operated by a screw and wheel, on the top of the tank, electric bells being used to signal.

Where this tank was used it was considered a great success, and we should be glad if some of our Louisiana sugar makers would give us the result of their experience with low grade sugars this season, considering the merits of the

various devices that have been used, say, wagons, tanks and cisterns, to produce the best results.

Employees in German Sugar Houses.

In a recent issue of Messrs. Willett & Gray's *Statistical* there was given some interesting data concerning German sugar house employees. It was shown that 95,162 persons were employed in the 455 German sugar houses in operation in 1895, against 67,288 persons employed in the 320 factories in operation in 1882.

Of those employed in 1895, 87,532 were males, and 7650 females. Of this personnel, 587 were owners or directors, 1283 managing employees, 2622 technical employees or scientists, and 90,670 ordinary workers. Of these latter 89,442 were above sixteen years of age, and 1228 were below that age.

It will be remembered that the German sugar houses average in production of sugar about 4000 long tons each, and from the above data it will be seen this average production of sugar was reached with an average of 209 employees to each sugar house, averaging 192 males and 17 females.

One factory was reported to have 1345 employees, while nine factories employed from three to twenty persons, forty-five factories from 20 to 100 persons, 228 factories from 100 to 200 persons, 156 factories from 200 to 500 persons and eighteen factories from 500 to 1000 persons.

In comparing these figures with what we are doing in Louisiana central factories, we must remember that these are the factory employees only and are not field employees in any sense. The German average of 4000 long tons production per factory equals about nine million pounds of sugar, requiring 209 employees, all told, from the management down to the common laborers.

We believe we do better than this in a few of our largest factories. We reach no such average as a whole.

In Louisiana we had 424 sugar houses in operation in 1895, which made 532,000,000 pounds of sugar or 1,256,000 pounds average each. Of course, this small average production, but little over one-eighth of the German average, could not have been produced with the relative labor economy effected in Germany. The average production of our

factories is, however, annually growing larger, and our many new inventions and labor-saving devices will surely in the end enable us to compete successfully with Germany, in so far as the number of persons employed in our factories for a given production of sugar is concerned.

Sugar in England.

Mr. Sigmund Stein, who is the manager of the Liverpool sugar refinery of Messrs. Crosfield, Barrow & Co., has recently published a small book of nearly a hundred pages under the title of "Sugar, Home Grown and Home Manufactured." In this book Mr. Stein endeavors to prove that the million and a half tons of sugar consumed annually in Great Britain can be produced there, and that the 15,000,000 of sterling annually spent by Great Britain for sugar could better be utilized in supporting their own home industries, thus saving the British farmers from ruin.

Mr. Stein has taken up the sugar industry as an expert, and discusses sugar making, sugar refining and beet growing. In fact, his little book is really a handbook of beet growing and of sugar manufacturing and refining. It is illustrated with cuts descriptive of beet sugar machinery, and of all the modern devices necessary for sugar refining. It is quite a handsome little book, and THE LOUISIANA PLANTER is greatly obliged to Mr. Stein for the copy sent it with his compliments.

Louisiana's Coal Supply.

The ideal manufacturing plant, so far as the generation of heat for steam production is concerned, would, of course, be one which utilized none but the refuse of its own products, for which no other value could be had, for supplying its furnaces. As no practical use other than as fuel has been discovered for the bagasse from our cane mills, this ideal would be reached in our Louisiana sugar houses were they able to generate all their steam from this refuse alone, but this success has not hitherto been attained here to any extent, although in the West Indies, owing to the large per cent. of woody fibre in the cane, it is frequently accomplished. The varying extraction secured in our different sugar houses makes it difficult to determine just what fuel value their bagasse would

have as compared with coal, but it is safe to say that even were the juice extraction 100 per cent. of the juice content, a pound of coal would still have a fuel value in excess of a pound of bagasse, and with an extraction of say 75 per cent., 100 per cent. being an ideal extraction never reached in actual practice, a pound of coal would have a fuel value probably four or five times as great as a pound of bagasse. But coal is expensive, extremely so, and it is this fact which has led to the struggles of inventive genius everywhere throughout the sugar producing world to raise steam from the bagasse alone, and which has resulted in the construction of numerous types of bagasse burners which, while they may not have succeeded in doing away with the use of coal entirely, have materially curtailed its use, and completely mitigated the bugbear of the bagasse pile by burning it up.

The purchase of coal being then a necessity for the present at least, such facts concerning it as bear upon its cost, its transportation, and its steam producing qualities, are of keen interest to all our planters, and knowing this we have considered it advisable to direct their attention to the inauguration of an enterprise which should have, in the ordinary course of events, considerable effect on the cost of this fuel and on the convenience of its delivery to the sugar plantations. We mentioned in these columns some time ago that the Southern Railway, that great corporation which has Mr. J. Pierrepont Morgan at its head, and unlimited capital at its back, had perfected arrangements for a coal barge line south from Greenville, Miss., the coal to be obtained from the Alabama coal fields, and transported by rail only the comparatively short distance across the State of Mississippi to Greenville, effecting an immense saving in freight rates and giving the coal direct water access to all the lower Mississippi plantations and those upon the bayous as well. This barge line is now an accomplished fact, and it should have a material effect upon coal prices by stimulating the competition between Pittsburgh and Alabama coals. The tipple erected at Greenville by the Southern Railway has a present capacity of about 1200 tons a day, and the towing facilities are practically unlimited, one of the

most powerful towboats on the river being now engaged in the work, and the services of as many more as may be necessary can be readily secured.

The consumption of coal on the river and tributaries south of Greenville is probably in the neighborhood of 1,000,000 tons per annum, and the present output of the Corona mine, the American mine and the Virginia and Alabama mine—these three being the only ones so situated that they can ship over the Southern Railway's Greenville feeder to advantage—is about 800,000 tons a year. This output, however, can be enlarged to practically any quantity that there is a demand for, the mining properties being susceptible of enormous development, consisting, as they do, of some 26,000 acres of coal lands.

One feature of the system of transportation involved which will commend itself particularly to the sugar planter is that the railroad company gives a through bill of lading right from the mine to the plantation, covering the entire rail and water haul, and they appear to have the same confidence in their ability to handle the immense shipments promptly and safely as they would in their ability to carry a barrel of sugar into Texas. The river south of Greenville is comparatively devoid of danger for the tows, and the excellent trackage between the mines and the Greenville tipples permits of their operating immense trains of seventy-five or eighty loaded cars with perfect safety.

There has existed a strong dislike in many quarters to Alabama coal, and in some instances it appears to have been well founded. These mines are comparatively new, and when first opened their outcroppings were put upon the market, and in many instances gave disastrous results. Again it has been unfortunately the case that dealers in this coal have committed the error of overselling themselves, and have, in their extremity delivered coal of a grade inferior to what they promised. These are not irreparable faults and a determined effort is being made to live them down. The mines are now well developed and the absurdity of killing the goose which laid the golden egg is dawning upon the eager dealers. So far as our planters are concerned they are interested only in getting good coal and getting it

cheap. There is no sentiment in the matter. The coal companies of Alabama have now secured reliable and cheap transportation; they are turning out first-class coal, and Louisiana is reaping the benefit of it in a cheap and excellent supply for its great sugar factories, and the city of New Orleans will likewise be benefited by this more certain and cheap coal supply, and will soon become the great manufacturing city that her location, climate and resources have long foretold.

The Louisiana Cane Crop.

Some portions of the sugar district have been visited during the past week by local showers, but the visitations of this character have not been sufficiently widespread to stop the cry for moisture that is going up from the planting community in general. A great deal of cane is badly in need of rain, and should none be had in the near future its chances for healthy development will be imperiled. May has so far been very near a record breaker in the matter of drought, but thorough cultivation has done much to mitigate the situation and everything is in proper condition to reap the full benefit of the showers which can now be reasonably expected to fall at any time.

Molasses as Stock Feed.

With the advent of warm weather many Louisiana sugar houses will begin to turn out their low grade or wagon sugars, and will have, of course, a large supply of molasses on hand. To sell this molasses at current prices seems almost criminal when we consider its high value as stock food. Horses, mules, cattle and hogs are fond of it, and will quickly fatten on it. Pound for pound, molasses is worth nearly as much as corn for fattening stock, and to sell it at about one-tenth of the price of corn, as has been so largely done, does seem a criminal waste of a valuable foodstuff. Mules will consume ten pounds of molasses per day right along, and will fatten on it. They will, of course, need nitrogenous food to make up the deficiency of molasses in this respect and oats is the foodstuff *par excellence* to go with molasses. The common prices of molasses taken in tank cars on the plantations is 1 cent per gallon. Corn in

Louisiana is worth say 42 cents per bushel or $\frac{3}{4}$ cent per pound. Valuing molasses as a foodstuff at the same price per pound would make it worth 9 cents per gallon, and the hundreds of thousands of gallons of molasses that are sent to Europe as stock feed are bought by the farmers there on about that basis. Has not it a similar value to our farmers and planters? The actual knowledge of this value is all that is needed to quickly double, triple or even quadruple the value of molasses on the sugar plantations of Louisiana.

A curious verification of the value of molasses as a fattening food and one of the incidental dangers of the use of such an exclusively fattening food are brought out in the subjoined clipping from *Hoard's Dairyman*, on some cattle feeding experiments made at the Iowa Agricultural Experiment Station. It is generally said that when hogs are very fat they won't breed well, and in our experience we are inclined to the belief that molasses has brought about this result with thoroughbred hogs in Louisiana. Such results have not followed the liberal use of molasses in feeding milk cows and thoroughbred bulls, although, as will be seen in the article quoted from *Hoard's Dairyman*, English breeders consider molasses bad for service bulls.

Be all this as it may, the fact remains that molasses is a first-class fattening food, and instead of throwing it away or giving it away at a cent a gallon, as is now done in Louisiana, it should be used to make the mules, horses and hogs fat. It will do all this.

Hoard's Dairyman says:

The Iowa Experiment Station has been making a series of very interesting experiments on calf-raising. These experiments have been mainly directed to the study of additional foods to be used in connection with skim milk. So far the experiments would seem to indicate that either oat meal, or a mixture of corn meal and flax seed, even corn meal alone, gave better results, in promoting growth simply, than oil meal. It is stated that cream is a highly carbonaceous substance, and that it is reasonable to suppose that it would be best replaced by a carbonaceous feed like corn meal rather than by a highly nitrogenous feed like oil meal.

There is one important point, however, which the Iowa experiment does not sufficiently cover. In the raising of heifers for the specific purpose of developing them into the best dairy cows possible, the kind of food they eat, and its tendencies, becomes a very important consideration. A constant guard must be had against feeding food that is too carbonaceous, having a tendency to promote too great a deposit of fat. What we are after in such a heifer is to develop organs of maternity as

much as possible. For this reason we need a more nitrogenous food than corn meal. The future cow is either made or spoiled very much in the first year of the heifer's growth. It is very much better for her future as a mother that in this period she is rather under than over fed. The effect of food highly carbonaceous on the genital and maternal organs should be more thoroughly studied.

To illustrate: It is a fact, well known among English breeders, that the feeding of molasses, which is almost pure carbon, to an ugly bull will, if continued long enough, have nearly the effect of castration. It will destroy the power of reproduction, and make him fat and sluggish. If the female be fed in the same way, it will have the same effect to a greater or less degree, in proportion as the dairy temperament is strong or weak.

Several years ago it was noticed by the owners of Clydesdale and English sire stallions that where barley and molasses was fed to them to make them fat and sleek, it had two disastrous effects: (1) Loss of power as a foal getter. (2) In case their colts were born, they showed a serious lack of vitality when dropped.

So marked is this effect of carbonaceous foods upon the breeding function, that many wise breeders of dairy cattle refuse to fit their animals for the show ring, because of the injury in this respect that comes to both male and female from high conditioning.

We have made repeated experiments with corn meal upon cows of various grades of dairy temperament to note what its effect would be. With cows of a low dairy temperament, by which we mean where the flesh-making tendency was rather strong, it proved very easy by feeding corn meal somewhat heavily to nearly drive them off, while at the same time they would grow fat. With cows in which the dairy or milk-giving temperament had been strongly established by both breeding and right feeding, this effect of too heavy feeding of carbonaceous food was well resisted.

The illustrations we have given will serve to show the necessity of "bringing up a heifer in the way she should go," because of the great difference in the effect of foods on the organs of maternity. For this reason we prefer the use of ground flax seed meal rather than corn meal to be added to the skim milk. In this connection it should also be remembered that the butter fat in the milk is not like any other fat in its effect on the growth of the young. Its effect on the nervous system is unlike that of any other fat, and all maternal functions are based particularly on the nervous system. For this reason, when we extract the butter fat from milk, we should supply the dairy-bred calves with a nervous supporting substitute as much as possible, and in every way promote a strong development of nerve power, for on this basis must we build the future dairy cow and sire.

Sugar Producer's Scare—Acquisition or Annexation.

WESTPORT POINT, Mass., May 20 1898.

Editor Louisiana Planter: There appears to be a general misgiving among our producers of sugar in regard to the effect of the war with Spain upon the home production of sugar; this in anticipation of our success and consequent occupation of Cuba, Porto Rico and Philippine Islands, all cane sugar producing countries. Sugar producers concede that we will annex Hawaii also. This government has no intention of annexing Cuba, but if Cuba be included, and the entire sugar product of the countries named becomes ours, by acquisition or by annexation, we have nothing to fear beyond healthy

competition; whereas, the beet sugar producers of Europe would in such event lose this market and open to us the trade.

Reducing pounds to tons of 2240 pounds, we find, from official statistics, as follows: In the year ended June 30, 1894, Cuba and Porto Rico sent us 983,474 tons of sugar, or above the average annual quantity exported to us. In the last fiscal year we received 296,606 tons of sugar from Cuba and Porto Rico. We received from the Philippines in the year ended June 30, 1896, 64,776 tons of sugar—her largest shipment to us. Last year only 32,500 tons of sugar came here from those islands. Hawaii sent us 192,547 tons of sugar in the year ended June 30, 1897. Taking the highest figures of these imports of sugar for one year as above, we received from all the countries named a total of 1,240,767 tons of sugar, while Germany sent us in the last fiscal year named 711,756 tons of beet sugar, and other European countries added 198,329 tons, in all 910,085 tons of beet sugar from Europe, and the quantity of beet sugar exports to this country annually increases, while the quantity of cane sugar rapidly decreases, a condition more dangerous to our sugar producers than exists elsewhere.

England takes most of the sugar product of the Philippines, her imports from there being in 1896, 345,691 tons of sugar, against 64,766 tons sent to us in that year from the Philippine Islands. Leaving out Cuba, because this nation has declared that it will free Cuba from the Spanish yoke for the benefit of Cubans only, there remains the small quantity of sugar likely to reach us from the Philippines, not to exceed an average of 60,000 tons per annum, and an average of not more than 200,000 tons of sugar per annum from Hawaii, in all some 270,000 tons of sugar from countries in the Pacific affecting us, as against over 900,000 tons of European beet sugar with which we were loaded last year, which quantity increases year by year. It is true that the Philippine Islands produce about 500,000 tons of sugar per annum at their best; so much the better for us if we retain the islands, as England will gladly buy four-fifths or the whole of it. In fact, the scare is practically reduced to Hawaiian sugars, of which the production is limited and not likely to exceed its present production to any material extent, while our capacity for producing beet sugar is equal to the present production of Europe, to say the least.

American sugar producers are borrowing trouble only to perceive or imagine impending ruin to our sugar industries, which there is no reason to apprehend under existing conditions or any conditions likely to come about. It has been said that "the sugar trust brought about this war for their benefit in order to get raw sugar cheap,"—bosh, it has been said that "if we annex Cuba, that island with American enterprise can produce sugar enough to supply the world." Well, that won't happen. The fact is this country consumed in the year ended June 30, 1897, 2,387,237 tons of imported sugars and 330,356 tons of domestic sugar, a total of 2,717,593 tons or 6,087,418,381 pounds, 83.75 pounds per capita. Home producers have ability, capital, energy and skill enough

to get a lion's share of this vast sugar producing industry, and need not fear either Hawaiian or Philippine Islands as competitors, but should beware of the floods of European bounty-fed sugars that are rushed to this country, far more to their hurt.

HENRY A. BROWN.

Our correspondent places the annual sugar production of the Philippines at a higher figure than any we now recall. He assumes the continuance of the English demand for Manila sugars even if the Philippines become an American dependency. This English demand can hardly continue, as the sugar producers of the Philippines will be certain to demand equally favorable relations with the United States as are now given Hawaii.

Under our tariff system duties on sugar are almost sure to be maintained for many years to come, and it is equally certain that if we acquire Porto Rico, the Philippines and Hawaii, the sugar from all of them will come in free. Add to these a reciprocity treaty with free Cuba and we shall have enough free sugar, as soon as Cuba recovers herself, to supply our whole sugar consumption.

The future of sugar production in the United States is certainly much endangered by the present war, Mr. Brown to the contrary, notwithstanding.—EDITOR LOUISIANA PLANTER.

Mr. T. H. Roger, one of the leading sugar planters of the Lafourche country, was a recent visitor to New Orleans. He registered at the Commercial Hotel.

Mr. W. E. Howell and Master W. E. Howell, Jr., of Lafourche, were guests of the St. Charles on Saturday last.

Mr. B. J. Morey, of Patterson, was a guest of the Commercial on Tuesday.

Mr. C. L. Bougere, of LaPlace, La., was in the city on a visit a few days ago, and put up at the Hotel Royal.

Mr. John LeBlanc was the sugar boiler at Oak Bluff plantation of Mr. H. C. Rose during the past campaign, and proved himself a skilful and steady man. One who understands his business as well as Mr. LeBlanc can always get a good crop.

The assistant superintendent at the Adeline sugar factory of Messrs. Oxnard & Sprague, during the recent campaign, was Mr. Harry Rollins, who is very well known in the sugar-planting community. Mr. Rollins was a number of years with the American Sugar Refining Company, and was also connected with the immense Caffery plant at Franklin, and with the sugar refinery of Messrs. Cunningham & Miller at Sugar Land, Texas. He has the reputation of being a thoroughly posted man on everything relating to sugar manufacture

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: In some localities the drought has been relieved by showers during the past week, but in more places it hasn't. The favored spots rejoice, while the rest of us are not only still in the dumps, but more so than ever, because every day added to the record of drought augments the injury and discomfort resultant from the visitation and seems to decrease the prospect for a prolific and profitable crop season for the year of our Lord 1898. A gentleman who has been prominently connected with the sugar interest from boyhood discussed the outlook with your correspondent yesterday and made the consoling assertion that it was much better for the cane that May should have been a dry rather than a wet month. He claimed that the record of Louisiana crops will show that the largest and best results have been attained in years when there was comparatively little rain during the month of May, and according to his opinion and observation all that will be necessary to relieve the present situation effectively and obliterate the deleterious effects of the dry spell will be occasional showers during June.

News of rainfalls reaches us this morning from almost every direction, excepting the upper part of the parish along the river, and to hear John Tucker and Brother Percy talk of the persistence with which their section is neglected by the weather bureau, one might suppose they believed themselves to have been selected as special objects of official if not divine wrath.

Hermitage plantation got more than a fair share of Wednesday afternoon's meteorological demonstration, a bolt of lightning having killed two mules and stunned the two negro drivers. The latter are said not to have been seriously injured.

One of the compensations of the drought is that while the growth of cane and corn is retarded that of the grass and weeds has been held back in like ratio, and the facilities afforded for continuous cultivation have enabled our field marshals and their troops to keep the crops free from all kinds of agricultural fungi. When the rains do come, therefore, the useful products of the soil will have a great advantage over the other kinds in the start attained for the race toward fruition.

The temperature has become quite seasonable, the range of the mercury during the past week having been from 57 to 93 deg. above zero. As for the river, its condition no longer excites interest outside of navigation circles, the water having declined to scarcely more than a bank-full stage, and no further apprehension of damage or danger to the levees being entertained. The reading of Observer Park's gauge at the Donaldsonville wharf this morning indicates a stage of 24.7 feet above extreme low-water mark, a decline of 3.3 feet from the highest point reached this season. The new and enlarged levees in this parish have suffered greatly from erosion during the high water period now coming to a close, and

the levee boards will find it necessary to expend considerable sums of money in repairing the damage and putting the embankments in proper trim to meet the next season's flood. Levee maintenance is about on a par with sugar house improvement in respect to the constant expense and labor required to "keep up with the procession" and insure the efficacy of the work for which the respective enterprises are prosecuted.

Pending the lull in field work resulting from the long dry spell many of our planters, managers and other attaches of plantation interests are putting in some of their spare time preparing for more efficient service in case of a Spanish invasion by popping at blue rocks on the gun club fields. The competition for the three gold medals offered by Dr. W. P. Miles, president of the Burnside Gun Club, goes merrily on, with genial Sam. J. Boote, manager of Clark plantation, leading class A by the skin of his teeth, Dr. J. T. Bringier and Mr. J. F. Saxton nip-and-tuck for the first place in class B, and Messrs. Arthur Morgan and Armand Belle side by side in the race for the class C trophy. The competition will continue until the latter part of June. Saturday afternoon there will be a general reunion and open-to-all competition of local shooters on the grounds of the Donaldsonville Club at Darrow, and on the following day a similar meet will take place at the St. Gabriel Gun Club's grounds in Iberville parish.

If folly was a claybird she would be shot before she could fly a mile in Iberville or

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: Excepting a fine shower two miles above Plaquemine on the 22d inst., we have had no rain since last report. Corn, in some places, is apparently burning up, and in others the cane is looking sick. Work in the field, however, continues. In fact, this is the only salvation for the cane during a drought. Some planters have been over their crops the fourth time since they have had rain. The dust is very disagreeable, but as clouds have threatened us with rain, all are hoping it will soon fall.

At the Union plantation of Hon. Andrew H. Gay, one mile above Plaquemine, the cane is growing, but there, as elsewhere, rain is badly needed.

Manager Daniel H. Walsh says he has worked most of his crop three times, and is now making his fourth round since he had rain. Union is determined to keep pace with the spirit of progress that has taken hold of the sugar section. A six-foot crusher, built by the Birmingham people, will be put in front of its six-roller mill. The old clarifiers will be replaced by a new and larger set, a new and improved bagasse burner added, and the "Union Central," on which runs the fleet little locomotive "Lodiska," will have its track lengthened one mile. Without the additions mentioned above, the Union factory was considered one of the best in the country, having a fine six-roller mill, built by the Fulton Iron

Works, and the Lillie triple effects, and it will now be without a superior.

The new mill for Mr. Rudolph G. Comeaux' Mayflower plantation has arrived and will be duly installed under the supervision of Messrs. Gibbens & Stream, of New Orleans.

Mr. Ben. C. LeBlanc, of Plaquemine, has lately returned from a successful trip to the Teche, where he placed five of the LeBlanc & Nadler cane transfers.

Mr. Lenfroid Landry, of Bayou Goula, the successful manager of Messrs. Landry & Dugas' Nottoway plantation, says Nottoway's crop is all right. Last year on 600 acres in cultivation Nottoway made 1,250,000 pounds of sugar and 660 barrels of corn, and this result will be equaled if not surpassed during the present year.

Mr. and Mrs. Eugene Tircuit, of St. James parish, are on a visit to their son, Mr. Thomas Tircuit, of Irion plantation near Plaquemine. Mr. Tircuit was formerly a citizen of Iberville and one of her best managers, and is at present a successful sugar planter in his adopted home.

A majority of the planters of the parish were at Plaquemine last Saturday and Sunday to witness the opening of a new race track course. No one loves a fine horse or a good race better than the sugar planter. In Iberville there are a number of fine blooded animals, and we hope that a little friendly competition will improve them and increase their number.

Sheriff Andrew A. Brown has advertised for sale, on June 18, all property in this parish on which taxes for last year have not been paid. We are glad to note that outside of swamp land, which the State under its arbitrary system of assessment and taxation confiscates, there are few delinquents, and not a sugar planter's or farmer's name is on the list.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: The drought that has prevailed here since April 19 continues without intermission. Several times during the past week the clouds have gathered and promised rain, but nothing more tangible than a light sprinkle has been realized. Bruly landing, in the south end of the parish, being the recipient of the aforesaid sprinkle. Further down, in the Levert-Lefebvre neighborhood, a fair rain is said to have fallen last Monday evening, but elsewhere throughout the parish the conditions remain unchanged. Under these circumstances it can well be imagined that the crops are suffering, more in some spots than in others, as is usually the case. Some spring plant in black land is beginning to look "sick." The lower leaves are turning yellow and apparently dying. On some plantations, where there is little or no black land, the cane, while somewhat dwarfed, has held up remarkably well and is quite promising. Indeed, it can be said that the "stand," taken as a whole, is good, although, of course, every planter has some "gappy" cane. Cotton, being a dry weather plant, is bearing up very nicely under the circumstances, but corn is in a bad way. The complaint is general that it is exceedingly difficult

to get a "stand." Summing up the situation, there can be no question about the fact that unless rain falls soon the crops will be seriously injured. As it is, the planters will be exceedingly late in "laying by."

Despite these unfavorable conditions numerous improvements will be placed in several of the large factories here. At Homestead an 8-foot standard double effect, with Deane pumps to operate same, will be put in. The 6x6-inch pan now at Katherine will be transferred to Homestead.

Mr. Geo. Hill is now putting in at his Katherine plantation one 8-foot standard double effect with Deane pumps.

At Orange Grove, Mr. David Devall is placing one 7-foot standard double effect, as also a vacuum pan 9 feet in diameter, both to have Deane pumps.

At Smithfield there is now being placed a 9-foot double effect, in addition to a bagasse burner outfit for four seventy-two by twenty tubular boilers. All of this machinery has been sold or contracted for through Mr. G. D. Von Phul, representing Hauptman & Loeb, of New Orleans.

Cinclare central refinery was the scene last Saturday of an interesting event, the occasion being a "flag raising" at that splendid factory. "Old Glory" was raised amidst the booming of cannon, the strains of music and the wild cheers of hundreds of spectators, who had been invited to participate in the festivities incident to the occasion. Patriotic speeches were made by Messrs. J. E. LeBlanc and Auguste Levert, after which a splendid banquet was served. A dance for the young folks terminated this delightful affair.

I understand that Mr. J. B. Churchill, of Pointe Coupee, is placing improvements in his Alma plantation.

In my next I hope to be able to report that a root-soaking rain has fallen in

WEST BATON ROUGE.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: After an absence of rainfall of any moment for nearly four weeks local showers have fallen in the parish enough to moisten friable earth several inches in some places, which will prove of benefit to growing crops; but a repetition of such showers would be welcomed. Showers such as fell in the vicinity of town were such as to stimulate rapid germination of grass and weed seeds, and their quick growth if not exterminated at an early date. Although the crops have been somewhat retarded by a want of moisture, yet the lands are in infinitely better condition and the canes as large and of better color than would have been the case had there been an excess of rainfall for the same length of time. An examination of plant cane and stubble shows that where not up, suckers have started at the base of the sprouts of each, and the latter are developing roots beyond the bar. The ratoons in many fields are in a condition to receive enough earth to suffice for a laying-by working should excessive rains preclude the possibility of giving the fields another ploughing.

Although somewhat small, quantities of land have been seeded with pease, and the corn given the laying-by working; on some places the soil is somewhat cloddy to insure a fine growth of pea vines.

But for the want of sufficient moisture, the weather has been very favorable for field work, and in consequence the operations on the different plantations are well advanced.

On most places the acreage in cane exceeds two-thirds of the area under cultivation, and for some weeks the feed bill for oats, and in some instances hay, will be quite large, to be paid for with sugar made from immature canes cut early in the campaign, from which but little or no profit is realized. If the basins between the bayous in this parish were given tide level drainage by cutting canals of adequate capacity, large areas could be reclaimed and put in cultivation, and forage crops could be grown in abundance, thereby obviating the heavy outlay for stock feed. With capital and a growing confidence in cane sugar, the work will be performed, and at less cost per acre than many suppose.

Recently some large mill rolls arrived in town en route to the lower Terrebonne refinery of Messrs. Bush & Maginnis. Mr. Thos. Shaffer, of Honduras, having purchased a more powerful milling plant, recently disposed of one of the mills used during the last campaign to Mr. C. A. Buford, of Forest Grove, on the Bayou Chacahoula.

Wednesday of last week there was a light fog in the morning, after which bright before noon and cloudy in the evening; Thursday, Friday and Saturday warm, partially cloudy, with strong south winds; Sunday, light local showers; Monday, misty in the morning, with heavier local showers; Tuesday, partly cloudy, very warm, and Wednesday, misty, with a heavy dew in the morning.

The official weekly weather report from Schriever is as follows:

	Temperature.	Sunshine.	Rainfall.
May 16.....	92 81	100	.....
" 17.....	93 63	100	.....
" 18.....	90 63	100	.....
" 19.....	90 71	100	.....
" 20.....	91 72	100	.....
" 21.....	92 69	100	.....
" 22.....	93 66	100	.....

91 66 100

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The weather continues very dry and dusty, and from present indications several more days of this weather is yet before us. There has not been rain enough in this parish to lay the dust since the first of April. The entire surface of the ground is as dry as powder and all vegetation is suffering very perceptibly from the effects of the same; cane, however, is standing the drought remarkably well. The general crop conditions are very much behind those of even date last year notwithstanding the drought that was prevailing throughout the parish at that time. A better stand of cane is enjoyed this year than last, though several of our farmers complain

of defective stands in plant cane caused by lack of proper precaution being taken in planting. Corn, cotton and rice are backward generally. Farm work is at a standstill and will remain so until rain moistens the ground.

The Hope Mill plantation, belonging to the estate of H. H. Bartells, was sold at succession sale the 21st inst., and was purchased by Mr. Isaac Wise, of New Orleans, for \$21,160 cash. This place is located twelve miles south of Abbeville on the Vermilion river and is one of the finest sugar plantations in the parish. The purchaser proposes to fit the place out in first-class trim, which will make a site second to none in this section for a central sugar refinery. There is now on the place over 100 acres of good cane which will be put up for seed to be planted on the place next year.

The Hall-Slutts Irrigating Company are progressing very nicely with their large canal on lower Vermilion, and will be ready in a few days for their immense pumps. They will not, however, be ready to irrigate their rice before the 15th of June.

Mr. J. Henry Putnam is having a fresh coat of paint put on the Rose Hill refinery buildings, which gives everything a new and attractive appearance around the plant.

Mr. Gus. Godchaux, a prominent business man of this parish, is attending to business in New Orleans this week.

Mr. W. M. Ratcliff, of Crowley, is in Abbeville at present. Mr. Ratcliff is the special agent for the McCormick Harvester Company, with headquarters at Crowley, and is also largely interested in the rice industry of that section. He reports the Acadia crop as being well advanced, with prospects bright.

Mr. Ben. E. Black, a prominent harvester and rice man of Crowley, is in Abbeville on business.

Mr. E. N. Stebbins, a prominent sugar planter and lumber dealer of this place, left Monday for Pickens, Miss., for a short stay.

Senator S. P. Watts returned home from his duties at Baton Rouge for a couple days to attend to business before the Seventeenth Judicial District Court, which is in session here now.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: The blessings which come with a rain are never more fully appreciated than when it has been dry for a long while. Such is the case here to-day; the rain which fell in light showers over the country on the 22d inst. was the cause of much good—by laying the clouds of dust, refreshing the dry soil and growing plants. While the rain did not penetrate the hot, dry soil to any great depth, it was, however, the means of doing a vast amount of good. In looking over the broad fields planted to cane and cotton, I find a marked change in the look and appearance of these crops.

Corn crops have no doubt suffered more from the late spell of dry weather than either cane or cotton.

It is well to note here that corn planted on a poor soil, wanting in drainage and cultivation, has small prospects for growing a stalk, much

less an ear of corn, which is sometimes charged to Providence, but I think if charged at all it should be to the improvidence and want of energy to stir and feed the soil to sustain plant life.

The cane growers have not to date been making much fuss about rains, but an occasional shower would have been beneficial to their growing crops.

The majority of them, knowing their fields to be in a fine state of cultivation and finding that the young canes were growing and at the same time penetrating the mellow soil with roots, were not worried.

THE PLANTER'S scribe received a letter a day past from a friend, living at Meeker P. O., brimful of cheering news relative to the prospects there of growing crops of cane, corn, and cotton.

Cane in the vicinity of Meeker is said to be very promising. The want of rain was beginning to be felt, but not seriously so.

It is learned that the farmers in the neighborhood of the growing little city of Thoda have made a fine showing in field work at the present time, corn, cotton, and cane giving promise of a bountiful harvest for this coming fall.

Having no disposition to boast of prospects nor of the finest body of cane lands that a crow ever flew over, I must say that with the indications as to-day presented and with anything like a fair season, the planters living in this and the adjoining parish will reap the greatest tonnage of cane known for some years.

In conversation with a farmer no later than yesterday from St. Landry, I learned that the crops in his locality were equal to the best. Some of the old first planted corn might be suffering for want of rain, but the later planting was very promising. Cotton and corn were looking well and growing. Speaking further in regard to cane our farmer friend said: "The stand of cane this year is the best I ever saw," and such it is on every place planted to cane in this country. In closing it is just to say that nearly every one has a fine garden full to overflowing with rich, fancy vegetables.

ERIN.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: Notwithstanding the predictions of some foretellers that rain was yet far away, on Wednesday afternoon, after experiencing one of the warmest mornings of the season, the sun was hidden by large black clouds, a heavy wind arose, and one of the most welcome rains of the season, accompanied by a loud thunder-storm, visited our vicinity, falling somewhat heavily for over an hour and a half. One could almost see every planter smiling as he watched the shower's course as it crossed the parched fields and watered the dry lands. The canes seem to have revived through this great blessing; the trees along the roads, which had been so often covered by the continual uprising of the dust, seem as if coming from a good bath, and have resumed once more their natural verdant color. With these warm, sunny days, the plan-

ters hope that the crops will retrieve whatever harm could have been caused by the long drought which is now over. Active work will be continued with more vigor. The corn crops present a very pleasant aspect now, and the results from this crop are expected to be very satisfactory. The principal thing now going on on the different plantations is the planting of the pea crop, which on some places is already well advanced.

The rice crops are in general very good, and almost all the crops have sprouted and are doing well. The planters who were already planning to put up pumps on account of the receding river are glad to hear of the steady rise which is now being felt up the Mississippi, and hope to have very little pumping to do, if any at all.

We understand that the Hester plantation, of the Gramercy Company, ranks high among those who have a magnificent crop. It could hardly be otherwise, for good lands being cultivated under the able management of Mr. R. Morgan, a reputable overseer, assisted by the popular Mr. Joseph Dornier, of Convent, could not but produce the best. Mr. Morgan has been on the place but one year, and his first crop on the Hester proving thus profitable will certainly add some other laurels to his already large crown of success as a good manager.

On Saturday, two weeks ago, Mr. Louis J. Folse sold his interest of one-half in the Felicity plantation, of lower St. James, to Mr. J. W. Ross, the former manager of the Hester plantation, for the sum of \$25,000. Nothing definite has been heard as to what Mr. Folse expects to do, but it is supposed that he will purchase another plantation at the first good opportunity which may present itself. Mr. Raphael J. Folse, his popular and well-known son, has secured the position of manager on the Felicity place. CONVENT.

Trade Notes.

The Pneumatic Engineering Company.—This concern, having its headquarters at 100 Broadway, New York, is becoming very well known to our sugar planters, and bids fair to be even better known in the near future. Its pumping system of the "pneumatic" variety, as indicated by its name, seems to be meeting with great favor, and apparently has a great many strong points in the way of economy and effectiveness to recommend it. There are a multiplicity of situations to which the apparatus made by them can be applied, and they already have an outfit installed and in operation on the Ridgefield place of Mr. F. W. Nicholls, near Thibodaux, and an inspection of the apparatus there, or a conversation with Mr. Nicholls, who is well known to all our planters as a careful, enterprising and practical member of the fraternity, will throw a better light on the advantages of the compressed air system of pumping than can be conveyed in the limited space now at our disposal. Mr. E. L. Mills, representing the Pneumatic Engineering Company and the Rand Drill Company, is at present in the city, and is located at the office of the local agents of these firms, Messrs. Haubtman & Loeb,

Gravier and S. Peters streets, New Orleans, where he will be glad to explain and elucidate everything in connection with compressed air and the wonderful effectiveness with which it can be utilized.

Drackett & Simms' Cane Slings.—It is manifest that the bulk of the cane crop of Louisiana will soon be transported in railway cars or in boxes to great central factories near or remote. This has led one inventive engineer to develop a number of cane slings that will encircle a cart or wagon load of cane, be it one ton or three tons in weight, and hold it in compact shape for transfer to cars or boats by any of the excellent cane hoists or transfers now offered.

Among the cane slings that have been perfected, the ropeslings made by Messrs. Drackett & Simms, and advertised in this journal, stand out as probably the very best thus far introduced for transferring cane from wagons or carts to boats and from boats back again to cars.

Mr. Drackett is a practical engineer and from his long experience in engineering devices developed the idea of a jamming pawl attached to cane sling hooks, that two years' actual work in the field have now proven unqualifiedly successful. With thirty-two feet of three-quarter inch rope and these hooks cart loads of cane of 1½ to 2 tons can be handled from cart to boats, kept solidly together in the boats and then lifted out of the boats on to carts or cars again without dropping a single cane. The writer saw this done in a large way last season and bossed the job for hours.

The excellence and success of Mr. Drackett's hook and pawl have led him to invent a dumping hook. He first tried this last season, but found the hooks as then made too light for the work to be done. This experience has led him to the perfecting of the dumping hook, and he has removed all the difficulties that interfered with its success last season, and he claims now that his device is a practical success. The trigger device is improved, the parts of the hook that broke have been strengthened and remodeled, and we believe with him that he has removed the difficulties that interfered with the success of his dumping hook last season.

The hook is made much stronger and adapted to a one-inch rope, and will readily lift and retain loads of as much as three tons of cane and dump the cane into carts or cars as may be needed.

The hooks are made of malleable iron, carefully annealed, are tested, and as strong as wrought iron forgings. An immense number of them will be used this season. Those desiring these hooks should make preliminary arrangements at least for them at once, as the demand for them last year was so great it could not be supplied in the autumn months. The advertisement of Messrs. Drackett & Simms will be found elsewhere in this issue.

Hon. Andrew H. Gay, of Iberville parish, was in the city on a visit a few days ago, and put up at the St. Charles Hotel.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, May 7, 1898.

Editor Louisiana Planter: April, as is known to everybody, is famous for inconstancy of weather, and therefore this month has grown to be a synonym for variability. This year, however, April distinguished itself by very unvariable weather, namely, bad, and so did it to the bitter end. At the close of last week there has been a semblance of an improvement, but this, to tell the truth, had not outlived that period, for before it ended a downpour of rain set in, and ushered in also the present week under review. This was on the 30th of April, and as a matter of course fears were entertained that the month of bliss would follow in the bad ways of its predecessor. This, however, and most fortunately, has not been the case. On Sunday, the 1st of May, the sky cleared up, the temperature rose, and the following days were sunny, dry, and even warmer than expected here at this time of the year. This untimely heat has not lasted very long, for, in consequence of it, heavy thunder storms set in, which again cooled down the atmospheric temperature, which, nearly up to the close, remained mild and dry, only just at the last a short but torrential rain came down. These meteorological circumstances have been distinctly favorable to all kinds of vegetation, which in these latter days has made quite a wonderful progress. In these "all kinds of vegetation" the beets come in for a very small share, as the bulk of them is either only just sown, or they are not sown at all yet. On the other hand, the long delayed field work has been vigorously pushed, and there is no doubt that the sowings, although late, are taking place now under favorable conditions. Outside of Germany the sowings are either ended or at least further advanced than in Germany, and in this even Russia makes no exception, as there the work of sowing is done to about three-quarters of the whole, which by no means can be said of Germany.

The saccharine bill has been, against my supposition, adopted by the Reichstag, the closure of which took place yesterday. It has become a law in the imperfect form alluded to in my last report. The admixture of saccharine to wine, beer, syrups, etc., is forbidden, and people violating the law are exposed to heavy fines; but the sale of the stuff for common use is left free, and it must be feared that the latter will increase now on a large scale, because the other ways of consumption are shut for the article and, as almost in all countries, the sale is restricted to drug stores for medical purposes only. Germany, that is the German sugar industry, is exposed to bear the entire burden of the production, which is strongly on the increase, for, dubious as the statistics are in this respect, it appears that the five factories of saccharine now existing in the empire have in the period from August 18, 1897, to January 31, 1898, produced about 350 kilogrammes, or about the same quantity as has been turned out in the entire campaign of

1896-97, so that the production of the stuff bids fair to be at least double what it was a year ago, and the consumption seems to increase at the same rate. A merchant's firm in the city of Posen sold in a very short time 60 kilog., and another firm in Leipzig is reported to sell annually 150,000 marks' worth of saccharine. This is not of interest and importance for German sugar makers only, for, if large quantities of the genuine article are replaced by the substitute in Germany, more sugar must be exported from that country, which then goes to depress the prices in the world's markets. Saccharine, therefore, is and remains as long as its sale is not prohibited throughout the civilized world, a sharp competitor, if not an enemy, of sugar, and to fight it with might and main lies in the interest of every sugar man and also in the interest of the public at large, for the stuff is palmed off to the buyers of confectionery, bakery ware, syrups, liquors, etc., as an equally wholesome sweet as sugar, which it is not at all.

There is now a new electrolytical process of juice purification much spoken of which can be used likewise in cane and in beet sugar factories. The same is designated by the name of process Say-Gramme, the large Parisian refinery of Say being one of its owners. The new invention is said to be destined to revolutionize the entire course of sugar manufacture and to have stood a thorough trial in a cane sugar factory, while with respect to beet sugar fabrication only experiments on a small scale have taken place. I am not able to-day to relate any particulars about the new process, but it is stated that the introduction of it into the work of the factory will enable the manufacturer to do away with several processes the juices at present have to undergo. I understand that the introduction of the process will cost a good deal of money, but if it turns out to be in practice as valuable as its promoters say it is, all factories desirous to keep up with modern progress can hardly afford to dispense with it.

In the face of the paramount interest the innovation has for the sugar industry of the world, I have no doubt that agencies of it will be established also in America, so that in due time you will have direct information about it at your disposition.

Under date of April 30, the inquiry of the sugar statistical union as to the area planted this year with beet took place and its result is, as foreshadowed in my former letters, a very small difference as compared with last year. In the following I give you the figures in hectares with only the percentage of decrease or increase: Germany, 423,785 (—3 per cent.); Austria-Hungary, 308,604 (+2.1 per cent.); France, 236,262 (+3.4 per cent.); Russia, 444,650 (+10.8 per cent.); Belgium (estimated), 50,000 (—9.3 per cent.); Holland, 43,823 (+22.4 per cent.); Sweden, 22,917 (—3.2 per cent.); and Denmark, 12,800 (+1.8 per cent.). Total for the European countries controlled by the union, 1,542,811 (+3.03 per cent.). It must be admitted, however, that prior to the publication of the figures the general belief was that the difference would consist in a decrease, whilst it turns out to be a slight increase.

But however small, this disappointment has contributed to check the buoyancy of the markets, and as besides some other circumstances of an unfavorable character arrived, such as large tenders of May sugar, the news of the sea battle near Cavite, which, ending with a victory of the American fleet, opened in some way the prospects of a nearer end of the war and thereupon the freeing of Cuban stocks, and last but not least the fine weather of these latter days, the tendency weakened considerably, and if sellers who were without a just appreciation of the changed situation had kept back with their offers, the prices would have suffered to a larger extent than has been the case. Actual 88 per cent. rendement closed at Magdeburg at 10.25 to 10.47 marks, and delivery May is quoted at Hamburg 9.225 marks, f. o. b. Refiners assumed for their goods a waiting attitude, declining to entertain the lower offers of buyers.

ROBERT HENNIG.

Barbados.

Reaping operations have progressed since our last, and although the wind has been slack and fitful for many days for windmills, yet the weather has been on the whole favorable, and headway has been made—about one-half of the crop, certainly in the southern districts, has been got in up to date; the yield has improved and remains fairly constant at the rate of two tons to the acre. Grain and quality are excellent. Two tons to the acre will probably be the average struck when all is closed, an average which the soil of Barbados is capable of exceeding, but below which it should never fall. Indeed, the soil of our island may be looked upon as a cane sugar mine not to be exhausted, and always ready to respond if skillfully treated. The pity is that any part of the produce of a soil so sugary should in these accurate days of scientific machinery be allowed to waste.

No rain to speak of has fallen during the fortnight; sprinkles occasionally, hardly enough to wash the dust from the young cane blades, but not enough for planting the hardy potato. In view of possible warlike eventualities it would be wise to plant the open lands freely in this root. The potency of the Union Jack may so dominate events as to prevent even the echo of the hostile cannon reaching our ears, but that is all; it can not avert the consequences to us of a disturbance of our breadstuff route from the United States even for a week. Already, although the war has hardly begun, and before an angry shot is fired, food prices have gone up; this is an index to what may be expected later on, when the contesting nations are hotly and fiercely engaged. It is very possible that our food supply, or a very large part of it, for some time to come, may have to be drawn from our own soil, and as it takes not less than eighteen weeks to grow a sweet potato crop, the lands opened up by reaping should be at once bedded for potatoes, ready for planting as the rain permits. Without a local supply of food, we may find ourselves cut off at any moment—starvation staring us in the face.

* * * * *

In the memorable year of fungus our molasses lost its good name; fungus undid in a single year the reputation of a century, and Barbados molasses was suddenly deposed from its high estate. The same thing often happens to individuals without fault of their own, but countries, like individuals, must do their very best to restore the brightness of their reputation, even though only tarnished by an accident. We have it on good authority that Porto Rico, whither the vessels of the maritime provinces went for molasses when ours became too bad for their trade, takes the greatest pains in the handling of their molasses, their product is always bright, clear and pure. The outbreak of the Spanish-American war must cut off the Porto Rico supply, and throw the trade once more into our hands. It can not be gainsaid that in former years we have been far too careless in this matter of molasses. Barbados molasses, as it drips from nature, is the finest in the world, but quickly becomes sullied by our careless handling, and too often have we placed on the markets the scrapings of cisterns, filthy and acid stuff fit only for the rum maker.

Now is our opportunity to make an effort to regain a lost trade, and to restore its prestige to "Barbados molasses," which was once a household word among Canadian farms and villages.

Our island is dotted with pleasant residences often associated with names recorded in our island annals. It is sad to see these old houses crumble and decay, carrying with them reminiscences of former owners once famous for patriotism and generous hospitality.

By a strange fatuity two such houses within the past fortnight have been destroyed by fire, both situated in the parish of St. John. Bellefarm house was accidentally burned on the 26th inst. It was the property of the Greenidge family, and associated locally with the much-respected memory of the late Dr. John Greenidge, who spent there his long, useful and laborious professional life.—*Agricultural Reporter*, April 30.

Trade Notes.

Messrs. Hauptman & Loeb.—These gentlemen advise us that they have recently closed a contract with Mr. John Hill, of Port Allen, for a 7-foot double effect of the Standard type, and with his son, Mr. George Hill, of the same locality, for an 8-foot double effect of a similar pattern. They report that business is good.

Mr. Ruffin R. Barrow, of Terrebonne parish, where he has extensive planting and financial interests, was at the Grunewald on Friday.

Mr. H. Chapman, the manager of the immense sugar planting and other interests of the Bradish Johnson estate, left during the past week for California. While on the Pacific coast Mr. Chapman will look into the methods of orange culture in vogue there, and post himself thoroughly on such matters as will be of value in developing the large orange groves possessed by the Johnson estate in Louisiana.

The Situation in Barbados.

April has so far been very favorable to reaping, with its sunny breezy days. Notwithstanding the slice taken out of the fortnight by the Easter holidays, good progress has been made, and with good reason—the canes are now at their best, and must be taken off as fast as possible. With a continuance of favorable weather for the next six weeks, an average yield of two tons to the acre may be expected; after that deterioration will begin, which, before the end of June, will probably reduce the yield to the unripe figure of one and one-half tons to the acre which obtained in the premature days of March. Between the two extremes of immaturity and over-maturity the loss is great. Nor is there any remedy until the island is fortunate enough to maintain machinery capable of taking off the entire crop within the period when its sugary content is at the best. We are stopping many a leak; we are learning the lesson which we have often heard preached by one of our most experienced and successful planters, that neglect of small things ruins estates, that "lynch-pin" management is the great desideratum, if we would keep them from falling into the chancery court. But careful as he may be, the planter without adequate machinery can not stop the thousand and one leaks which drain our estates, and rob our lands of a far too heavy percentage of their produce; all he can do is to push on as best he can, save all he can and shut his eyes to the rest. As may be inferred, agricultural operations during the fortnight have been almost solely confined to reaping, for, save stirring the soils in the young cane fields, there has been practically nothing else to do. The beauty of sugar cane culture is that it finds employment for so many different grades of labor—for young and old alike—the strong and the weak. In this island nothing could supersede it; there is absolutely no other plant which affords such diverse employment; other industries might be more profitable to individuals, but none other could employ so many hands. Destroy our sugar cane industry and hardly a tithe of our apparently heavy population of 1200 to the square mile would find sustenance—now only apparently heavy, because the sugar cane finds work for all willing hands to do. The sugar industry has been kept alive for better days, and the thanks of the community are doubly due to those who have financered it through all these years of crisis, and to the patient, hard-working planter class who, with all their trials, have never lost heart.

There is now a little rift in the dark cloud, and the ray of hope comes from the young Dominion rich in wheat lands, peach and apple orchards, mighty forests, fisheries on two oceans, extensive ranches where cattle and horses thrive and fatten in the open all the year round, dairy farms, to say nothing of wealth of gold and silver and other valuable minerals, but above all of coal and iron in profuse abundance from Columbia to Nova Scotia. The Dominion, like a young giant, sits astride the great continent, commanding two oceans, into which her great railways that connect Pacific with Atlantic pour the ever-

increasing wealth that is being gathered from her teeming resources, as yet but scarcely tapped. The future of such a country is assured. Only railways were required to bring down this vast wealth to the two oceans which, East and West, afford a waterway to a limitless commerce. It requires no prophet to foretell the dimensions to which Canadian trade must swell with such unlimited capability of production, of such varied and exhaustless wealth, and with such facilities for trade with the continents and islands, Asiatic, American and European, that lie on either hand. The progress is even now by leaps and bounds, while the energy and loyalty of the Canadian people have so established their country on a sure and stable foundation that future growth and development will not only be uninterrupted and fast, but steadfast and solid.

Already the West Indies draw from Canada three-fourths of their supplies. Many of these items come indirectly through the United States, but there is absolutely no reason why Canada products should not be imported direct, and it is no secret that the Dominion government is making, and have long been making, strenuous efforts to carry on their West Indian trade by direct methods and more profitable to both parties—a consummation devoutly to be wished. Canada wishes to extend her markets. West Indies is languishing for markets. Pinched, because in restricted protected, or bounty markets, she is obliged to accept a pittance for her produce. A freer entrance into the Canadian market under better tariff arrangements will, therefore, be doubly welcome; it will tend to unlock the sugar trade, while the more imperial commercial policy of Canada can not fail to be an object lesson to the Mother Country, whose commercial policy can not be called imperial. The Canadian refiners, like those of the United States, require raw sugar—just the article which British West Indies is in a position to supply—and as the English refineries have been closed unwisely, there is every reason why West Indians, while losing no opportunity of strengthening their trade relations with their cousins of the States, should establish new ones with their enterprising Canadian brethren. We can state on the best authority that the capital invested in 1891 in Canada in sugar refining was \$5,924,400 and the annual value of the product \$17,127,100.

It matters not to us how much sugar Canada consumes, but rather it concerns us to know that her refineries annually work up a vast amount of raw material, and that statistics tend to show that her sugar refining business is an increasing one. Hitherto large supplies of sugar were obtained from Cuba, but now that that source of supply has been ruined, the Dominion naturally turns her eyes to these little colonial sisters of hers, and it will be well for us if we do not now reject her advances, but rather prepare to extend our trade directly in the new direction.

Indeed, nothing better could befall these West Indian islands than to get well into the current and swing of Canadian development, and so find escape from the waters of stagna-

tion. Far better for us to get into the current of the young and healthy trade life which animates the Dominion from Atlantic seaboard to Pacific than to grow anæmic, stagnant and poverty-stricken, bound to sell in any single market, poor dependents of a government which twits us with a poverty which itself has created, refuses to consider the only possible remedy for the injustice, but satisfies its conscience by throwing doles at our heads.

Barbados wants no dole, has never asked for any. Sir H. Vincent, as reported, neatly puts her case: "The bounties are really the source of the difficulty; there is only one way in which the difficulty could be met, and that was by countervailing duties." If the mother country persistently refuses to checkmate the bounties by a countervailing duty, and so return to free trade in sugar, it is but fair that she should no longer keep the West Indies in her hampering leading string, but leave them free to make such commercial arrangements as they may, as nature and common sense dictate, with the United States and the Dominion of Canada.

West India is no run-down, poverty-stricken dependency; only a neglected, undeveloped estate which has poured wealth into British coffers, and yet remains as rich in natural resources and as virgin as ever; a magnificent estate only requiring capital for development and markets for produce. She has never raided on British taxpayers; in the old days they raided her and taxed her sugars unmercifully, and even now they are raiding her in a novel way while they fatten on sugar cheapened by a foreign tax. West Indians, as British subjects, have every right to complain of the effects of this foreign tax, and of the crass ignorance of those un-British politicians who even on the floor of the House of Commons ignore its logical results. West India has been sorely wounded in the commercial battle; Britain's gain has been her loss, and is it fair that the small boys of the Labouchere type should jeer and jibe!—*Agricultural Reporter*, April 16.

The Sugar Business.

The old reliable "Sugar Planters' Association of Louisiana," at its last monthly meeting, applied as an organization for membership in the National Protective Tariff League of New York City and it is a further fact that almost all of the prairie States of the West are experimenting in the growth of sugar beet, and that large capital stands ready to build all needed factories; all of which goes to show that the people of this great land have decided and determined that this country can and will grow all of the sugar that it consumes, and thereby save the hundred million dollars which is paid for imported sugar each year.

The Cuban war, if it shall last but a few months, will necessitate putting a large number of free importations on the dutiable list, and it is quite sure that no less duty will ever again be put on imported sugar than that of the Dingley bill. Hence, whether we are Democrats or Republicans, or of whatever political opinion, as business men we should look for an industry that offers the best future,

When shrewd business men saw that tin could be made in this country it was put on the dutiable list, and though that act more than any other one feature of the McKinley bill defeated the party that enacted it, yet men stuck to the business end of it and it is now one of the successful industries of this great country.

So, now, with sugar. For a century the Northern States protected sugar, together with their own protected industries. The South fought the principle of protection and kept out all capital for growth and manufacture of sugar. But for this fact the cultivation of sugar beets would never have been encouraged. We have slept on our rights. We have lost our golden opportunity. The sugar beet has come to stay, and whether we of Florida shall have even a bite in the great future production of sugar will depend upon the prompt action of our people.

Northern men vote with their party, but never let that party or party ties keep them from putting their money where there is the greatest "protection," and there is no greater mistake than to suppose that only Republican money is found in the protected industries of the North. No man can be re-elected to Congress from any State that grows sugar beets if he opposes a high protective duty on sugar; hence, no product of the United States has so bright a future as the sugar industry.

No man who fully understands the difference in the work and risk between beet and cane cultivation would take the beets, but the great mass of intelligent beet growers of the West think that cane can be grown only by negroes, and that the climate of Florida is intolerable, to say nothing of the snakes, lizards, 'gators, fleas, mosquitoes, etc.

What public speaker or newspaper save the *Times-Union* and *Citizen* has uttered a word of contradiction of these false and absurd ideas of our Florida soil and climate?

We all know that sugar cane is grown in greater or less quantities on many farms or house lots in the State. We all may know, if we do not know, that its tonnage yield will be equal to the fair average of Louisiana, with just the same quantity of fertilizer.

We all should know and tell it from the house tops, that Florida sugar cane is fully 25 per cent. richer in sugar content than the best of Louisiana, and fully as rich as that of Cuba. We do know, and ought to have others know, that two acres of sugar cane can be grown here with the labor and expense of one in Louisiana.

We do know, and should have our Northern farmers understand, that sugar cane in Florida is a "white man's crop," and has none of the hot harvest times of Pennsylvania, or the cold, chapped, frosted hands of corn husking in the West.

But, when we have said and done all this we must secure capital and build sugar factories. Syrup making as practised by all of the people is a flat failure, and to encourage it is to practise a fraud. The intrinsic excellence of our cane makes it unfit for syrup. It has such an insignificant amount of glucose that it can not be kept from granulation, and as a

consequence the remainder becomes thin and ferments. Our greatest efforts should now be put forth to get capital interested in the building of centrifugal sugar factories all over the State, and if this can not be done we should make such an amount of syrup as can be put up in air-tight cans or jars, and no more, and the balance should be boiled to such a consistency as to make sugar. Even in its crudest way this would be better than making syrup to be sold at present prices.

The writer has chosen Florida for his future home, and believes that it is the best part of the earth for comfort, and that it may be the most prosperous, if only we had faith in our own country and would begin the production of such things as are indigenous to our soil and climate, and invite the world to help us develop it regardless of politics.—*John Thomas Porter*, in *Florida Times-Union*.

Grand Ridge, April 30, 1898.

Sugar Canes in Jamaica.

In order to test the qualities of the new canes at Hope Gardens, as compared with the ordinary black and transparent cane commonly planted in this part of the country, I purchased from the Gardens 1500 tops, comprising six varieties of what seemed to be the best, judging from former reports. These tops were planted at Canaan in St. James in December, 1896, in ordinary cane holes, 4x4½, the soil being a rather stiff clayey loam, which had been in common grass for over forty years; and, allowing for what plants were not good, the extent of land covered amounted to six square chains. In the same field, and adjoining this plot, the ordinary creole cane tops were planted—all receiving the same care and cultivation.

The canes were cut on the 16th of March, 1898, exactly fifteen months after being planted; the rainfall for that period being sixty-four inches fifteen parts—a fair average fall for that district. Over seven inches fell within a month after planting, followed by a dry spell of two months, then fair regular showers till December, 1897, after which it was almost dry till the time of cutting. No irrigation was done, and no manuring, but the soil had a fair proportion of humus. The results as to weight of canes, percentage of juice, etc., were carefully noted and a full detailed report is being sent to the *Botanical Bulletin*.

I give here the general features. The new varieties are known as Caledonian Queen, Poa-ole, No. 49, No. 99, Tsimbic and No. 114; and all of these showed a higher percentage of juice (with the exception of Tsimbic, which was slightly lower) than the ordinary creole canes; but the latter were much higher in density.

Taking everything into account, the juice of the new canes gave proportionately more sugar and rather better grain than that of the ordinary; but less molasses, which were of weaker density and gave less flavor to the rum. The proportion of sugar was therefore better; but both proportion and flavor of rum were lower. This is a great point to be considered, as on estates that "go in" for highly flavored rums, the ordinary creole canes yield much

better results; but where rum is a secondary consideration and the outturn of sugar is the chief aim, undoubtedly the better kinds of the new canes are the best. Caledonian Queen, Po-a-ole and No. 49, according to this experiment, would yield better results to vacuum pan estates and small settlers.

In most reports and criticisms on cane culture the element of rum is left out of the question. This should not be in Jamaica where rum is of so much importance. On many estates on the north side one puncheon of good rum is made to each ton of sugar. In view of the facts realized by this experiment less than 75 per cent. of the usual quantity would be got from the "new" canes, with a loss in flavor.

	Tons cane, Den-	
	per acre. sity,	
Creole plants gave.....	31	26
Caledonian Queen gave.....	44	23
Po-a-ole gave.....	36	21
No. 49 gave.....	34	21

—J. Shore, in *Journal Agricultural Society*.

Queensland Says of Hawaii:

Our sugar growers can learn a good deal from the planters of the Hawaiian Islands. Their American energy and mechanical genius have been brought to bear upon a remarkably fertile soil and a favorable climate, and their methods are well worth studying. Among other "dodges" the use of the diluted juice from the third mill to macerate behind the first mill has been tried with satisfactory results at Onomea and Kohala sugar companies' mills. This process was introduced by Mr. Faron, the engineer at Pahala mill, about seven years ago. At that time it was tried at Paauhau mill, but abandoned, as the fine trash from the juice choked the spray pipe. At Kohala no spray pipe is used, the juice being pumped into a trough which is set level over the trash, from one side of which trough it flows over the trash in a thin and tolerably even stream.

In the matter of transportation, too, the Hawaiian planters are progressive. The conditions are unique, it is true, but as the sugar country in Queensland is settled upon similar conditions it will be found amenable to similar treatment. On plantations where the lands are steep enough for gravity roads, but broken up by gullies, so that the gravity road could not be fed by wagons to advantage, a rope tramway may be used. One of these was installed at the Kukala plantation by Mr. Horner with satisfactory results. This plan comprises a permanent stationary wire rope, supported at intervals by frames; the cane is bundled and tied together by a rope sling, the bundles weighing about 125 pounds each. The bundles are attached to small pulleys which, when placed on the stationary rope and liberated, travel by gravity to the terminus, either to cane carrier, car, or railroad; the small pulleys with bundling ropes are packed back to the field to be used with other bundles of cane. This system has many advantages where the lands are rough for wagon work, and its adoption will probably be greatly extended in the future. The main permanent wire can be fed by a shorter one, which can be swung around the field to avoid unnecessary

handling. A good deal of trouble has been caused, for example, in the Blackall Range district, which comes within the sphere of influence of the Moreton central mill, by the difficulty of finding a passable route for a tramway connecting some of the farms in the more broken country with the mill. In such a case as this the Hawaiian rope tramway system should be both inexpensive and effective.—*Queenslander*.

Mr. James V. Chataway.

This distinguished gentleman has recently received very deserved promotion by being made the Minister for Agriculture in Queensland, Australia. Mr. Chataway has given much attention to the sugar industry and for quite a while was one of the editors of the *Mackay Mercury* and subsequently the founder of the *Mackay Sugar Journal*. For a time he was the Queensland correspondent of THE LOUISIANA PLANTER, and his letters always indicated a very thorough comprehension of this great industry to which he has devoted his best energies. While there are other agricultural industries in Queensland that will demand the earnest care of the new minister, still the most progressive one at present seems to be the sugar industry, which has received enormous development under the sugar industries act, through which corporations were enabled to secure loans from the government for the construction of sugar factories at desirable localities. Mr. Chataway was largely instrumental in securing the passage of this act and has always used his best efforts to promote the good of the Queensland sugar industry, which during the last ten years has very largely increased.

We sincerely hope that Mr. Chataway's future in his chosen vocation will lead him to still greater success than he has realized in the past.

Upland Rice Culture.

A farmer with fourteen years' experience in planting upland rice in Florida once told the writer that he preferred medium poor land; that his best land produced too much straw and too little rice, while on the medium land the yield of grain was heavier. Flatwoods, or meadow land, such as can be found abundantly in Florida, will produce a good crop of rice. But, while the application of nitrogenous manures is not to be recommended, for the above reason, a light sprinkle of sulphate of potash and acid phosphate is desirable, to make the grain plump, heavy and sound. Two hundred pounds to the acre, half of each, will be enough and it will pay because rice, with the same labor, will produce twice as much weight per acre as corn.

First, clear away all trash, since rice, when small, is easily torn up or mashed down; then break and harrow the land well. Repeat the harrowing twice at intervals of two weeks; this clears the ground of crabgrass before the rice is planted, and gives it a better chance because less grass will come up afterward. Any time before May I make rows with a five-inch plow, two and a half feet apart, and as straight as possible to facilitate tillage.

Drop from six to twelve grains every ten inches. Cover with the same plow, two furrows.

When the rice and grass are well up, take sharp hoes and lightly cut off both rice and grass. Or if the land is very smooth and free from trash, this may be done with a sweep filed sharp and scoured bright. The rice will be up again in a few hours, thereby getting a start of the grass. When another crop of grass is up, run around the rice while small with a 5-inch plow.

After this take a 12-inch sweep or "go-pher," and go once between each two rows. Next time go between the rows once with the same implement and, with a little hoeing, the cultivation is done.

As above stated, the crop, with the cultivation here advised, will be about twice as heavy as corn. If there is no mill in the neighborhood it will take rather more work to harvest and clean it than corn; but rice mills are generally coming into vogue.—*Florida Agriculturist*.

Egyptian Rice.

J. P. Hoyt, of Estherwood, is one of those progressive farmers who believe in improving farm seeds and by judicious experiments ascertain the value of such varieties as are the most prolific and best adapted to our soil. On Monday he showed us samples of four varieties of Egyptian rice, he having procured two pounds of each kind from the Department of Agriculture, the seed being received by our government from the United States consul in Egypt.

The var "Sabiney" is a very early variety, closely resembling the Japan rice, and it is claimed can be planted twice the same year on the same land and yield good harvests each time. Planted the first of May it was reaped the 15th of July; planted the 15th of July it was reaped the 15th of September. The other three varieties, var "Fino," var "Fohle" and var "Din-el-Bint," are later but claimed to be excellent. Mr. Hoyt will plant these seed on separate plats in the best land.—*Crowley Signal*, May 21.

A Trip to Jamaica.

Our ship was the Mascotte, of the Plant Line, and a very nice one, too—that is, as a seaworthy craft. We sailed at 7 P. M. from Port Tampa and reached Key West at about noon the next day. We had two hours there, and found it quite enough to see all that was of importance, and more, too. "Key" is the name given to the low coral reefs and the islands that abound in the Gulf of Mexico. Key West occupies one of them. It is perfectly flat and only just above the water. Cigar stores and factories are mostly all there is there. The war fleet there attracted our chief interest. Besides many torpedo boats, there were the first-class battleships Iowa and New York, and the cruisers Marblehead, Nashville, Montgomery and Detroit. We passed close by them and had a splendid view. They look beautiful in their fresh white paint, and with everything about

them so orderly. What they would do in a fight we do not know.

Continuing, we sailed from Key West directly for the eastern end of Cuba, and in the morning were in sight of the coast, and often sailed close enough to see very distinctly. It was all mountainous and we could see no evidence of habitations. We had fine tropical seas, and it was a perfect voyage for all who were half-way good sailors. Just at sunset Tuesday night we sighted Jamaica, and at 9 o'clock felt our way into the harbor of Port Antonio by the help of a fine searchlight. It is a small harbor with a very narrow entrance and high sides all around. I can't imagine a snugger, prettier little pond than it, and its water is deep enough for any vessel afloat. We spent the night aboard and started early in the morning toward Kingston by train. Mountains rise steep right out of the sea. Their sides are covered with foliage more dense than one could believe, if he hadn't seen. This denseness of the vegetation is the great feature of the island, and, with the exception of a few small spots, is everywhere—no hill so steep or precipice so abrupt that trees and plants do not thickly cover it. The railroad goes eastward along the shore and winds and climbs among plantations devoted to banana raising. This region is the great banana section, so the boats of the Boston Fruit Company come to Port Antonio for their cargoes. They take away an average of a shipload a day the year through. There are plenty of other fruits, however. Indeed, we were utterly unable to keep track of the dozens of heretofore unknown and unheard-of varieties. The coconuts are not new, for they are plentiful in Southern Florida, but what do you know about akee, mango, star apple, soursop, jack fruit, tamarinds, guava, spodilla, calabash? Besides the fruits there is almost every sort of tree known—logwood, mahogany, boxwood, guango, silk cotton, coffee bushes, royal palms and the more familiar pines and cedars. These do not occur only occasionally. They are thick in every direction everywhere. I verily believe that if one knew all about all the vegetation of Jamaica there wouldn't be much more in that line to learn.

When Annotta Bay is reached the railroad turns inland and we climb and twist up the mountains. We find them very steep, with no valleys—just a series of notches—for at the bottom of each slope another one immediately rises; yet these slopes are frequently cultivated, and where it would seem a man could scarcely hang by his toenails something has been planted—usually bananas or yams—and grows prodigiously.

At a station called Bog Walk we left the train and drove into Spanish Town. It was about twelve miles and it is called the Bog Walk drive. It runs beside the Rico Cobre, deep down in one of the mountain notches. Along the road at intervals we came to squads working at road repairs. Women were breaking stone and men did the carting and placing. All were negroes—indeed, we did not anywhere see any white person engaged in manual labor. Even the railroad engineers and firemen and conductors are negroes. White peo-

ple constitute only a very small percentage of the population, and in our explorations we seldom saw any. But the black people are everywhere in swarms—on the plantations, in the yards, doors and windows of every shanty, but we noticed most those on the roads. A few have a donkey, and sometimes a cart, but most of them walk. Any time, anywhere within fifteen or twenty miles of a market, a steady stream will be found going each way. The invariable manner of carrying things is on the head—anything from a barrel of flour to a spool of thread is thus carried. They are, with rare exceptions, barefooted, and are very poorly dressed. The climate makes but little clothing necessary, and that little is usually pretty ragged. It is common to see women washing clothes in the streams, but the things they wash would be designated as rags even by a most saving American housewife. But they are poor. The loads of things they carry all those miles to market will bring, perhaps, from six cents to thirty cents. Those women breaking stone on the roads can earn, if they are extra industrious, eighteen cents per day. But none of them need want for plenty to eat, for the trees have plenty to spare, which may be had for the taking.

We are still on the road to Spanish Town. That place was reached without unpleasant incident, and we lunched at a hotel which has very pretty grounds. Driving was so pleasant that we concluded to drive on instead of going by train. So we drove another twelve miles to Constant Springs Hotel, which is six miles north of Kingston and near the foot of the mountains. The air is clear and bracing, as it is 600 feet above the sea; the elevation also affords a fine view of Kingston, the harbor and Port Royal. In the evening a cool mountain breeze came up and it was comfortable to sleep under double blankets. That didn't seem much like a tropical climate. Jamaica has no excessively hot weather. Of course it is hot in the sun in the middle part of the day, but I should say it rarely gets warmer than 85 to 90 deg. In the shade it is just nice and there is most always a sea breeze. The nights are nearly as warm as the days. The equability of the climate is its chief feature.

From Constant Springs we drove next day to Castleton Gardens, a government institution where trees and fruits are exhibited and experimented with. There are specimens from all parts of the world and the Jamaica climate seems to be adapted to anything that will grow in any tropical country. Some of the trees and flowers seemed truly wonderful, so strange were they. I saw there growing the trees that produced such common things as cinnamon, cassia, cocoa, nutmegs. The latter fruit (?) and tree look especially attractive. The drive to Castleton Gardens would be an event if there were nothing there, for it is up into the mountains and is wild and rugged enough to be called grand. All the Jamaica roads are finely made and kept, just as the English people always have them, so we rolled easily and smoothly up and down and around the continuous twists and bends of the mountain road.

Often we were high up above the valley, and if we had but run over the edge would doubtless have turned completely over sixteen times and landed precisely right side up. As the island is mountainous, over most of its area such devices may be found most anywhere. If one were to stay for some time I think nothing pleasanter could be done than to do an extensive driving tour. Incidentally one could make an extensive collection of botanical specimens.

On returning from Castleton we went down to Kingston. There we found the first heat that seemed unpleasant. It is not a pleasant place and one would miss nothing if he didn't go there at all. The buildings are mostly small, poor and unattractive, which I suppose is usually the case in tropical cities. The sewers run above ground in the streets and the general sanitary conditions are not good. We stayed there but little, however, and used it merely as a starting place for our trips about.

The first one was out to a sugar plantation. There we saw the process and also saw rum made. It is made from molasses, as you probably know. We also visited "King's House," the Governor's residence, which is surrounded with extensive grounds of great beauty. Then we went to Hope Gardens, another government institution. It is devoted chiefly to the raising of plants and slips, which are sold at cost, with the object of encouraging the raising of the various things which by their experiments have proven adapted to the climate. Such things as coffee, orange, grape fruit, nutmeg and cocoa trees are sold at a penny each, including a small bamboo pot. This is a very important work, and without it many things now well introduced on the island would be unknown. They also give considerable attention to ornamental trees and flowers.

Just to fill in a couple of hours in the late afternoon we took a drive to what is known as Rock Fort. A portion of the way is impressive, being along the sea and at the base of the mountains, which rise right out of the water. Our hotel in Kingston was very poor, and we did not regret leaving it. The unfortunate part of it is that it is the best one there, so the poor tourist must endure it.

Saturday, our fourth day, was spent riding to Montego Bay, six hours and a half. It was interesting, being through the mountains all the way, but didn't present any new features. It was a difficult thing to build a railway through that country. They didn't have any enormously big problems to solve, but I fancy there were lots of troublesome little ones. At the end of the journey we had a grand view of the sea. The railway, still high up in the mountains, runs out into sight of the water and works its way down the side, affording a perfect view all the way. Our ship was waiting for us and we were taken aboard at once. A woman was out in a boat selling oranges. Her price was six pence per dozen. They were very good oranges, but a little small, but the price will give you an idea about the cost of such things there.

At about 4 o'clock we were off, with a pretty stiff wind blowing. We went around the west end of Cuba, but passed it in the night and didn't see it. On Tuesday about 10 A. M. we reached dock at Port Tampa, less than three days out.—*Arthur G. Bennett, in the Grocer's Criterion.*

The War and Prices of Sugar.

The event of a war between Spain and the United States introduces quite a new element into the conditions of the sugar trade in Great Britain and places both buyers and sellers in a position which hitherto has been utterly unknown to them. Spain in the Mediterranean, as every one knows, produces no sugar there, but in her sovereignty over the island of Cuba, "the pearl of the Antilles," as it is called, she has in prosperous times raised as much as as from 800,000 tons to 1,000,000 tons of cane sugar per annum, a great part of which, when not imported into the United Kingdom, as in the days of *ad valorem* duties, was shipped to the Northern ports of America, and helped to furnish the refiners there with the sugar they needed. In consequence of the revolution of late years, however, and the devastation of the cane growing districts, the production of sugar in Cuba has seriously fallen off, compelling the dealers and manufacturers in the United States to draw considerable supplies of the article from Europe and elsewhere to make up for the deficiency in the Spanish West Indies. Therefore, as the shipments from the latter quarter to New York, Philadelphia, Boston and adjacent entrepôts along the Atlantic coast, are now not unlikely to be stopped altogether, the prospect, from an American point of view, of obtaining the requisite supply to meet their yearly consumption of 2,000,000 tons of sugar, is anything but cheerful.

Starting with this idea of the altered situation of sugar in general, speculators here and abroad have come to the conclusion that prices must advance. Statistics, as presented to us by the highest authorities, are not very favorable for an upward move, as the imports into the United Kingdom for the first three months of the year, according to the official accounts, though less than in 1896, viz., 339,120 tons, against 399,825 tons, were heavier than in 1897, when 278,594 tons raw and refined descriptions were received. Also, what are termed the "visible" supplies, while not reaching more than about 2,500,000 tons, in comparison with 2,700,000 tons last year, are actually 280,000 tons larger than the 2,220,000 tons estimated as "in sight" in 1896. Putting the above amounts together and spreading them over the whole period under review, they form the following totals: 1,017,500 tons for the three years' receipts in the first quarter up to the 31st ult., and 7,420,000 tons as the prospective supply in the aggregate for the three seasons. Reckoned thus the averages for the years 1898, 1897 and 1896 come out at 339,000 tons as the separate quantity of all kinds of sugar landed up to the end of March, and 2,473,000 tons as the total weight of stocks in hand and arrivals on the way at this time in each year. As matters stand at the moment, and apart from all alarmist war scares, there is nothing to warrant any violent changes in the London sugar market, and but for the unfortunate Hispano-American rupture, the business in sugar might have gone on as smoothly as ever for an almost indefinite period.

As circumstances have ruled it otherwise, it

is for the retail trade to consider what line of action they intend to pursue. Already the tendency of prices has gone strongly against them and many distributors can not now sell sugar at a fair margin of profit. Another material rise will turn an imaginary profit into a sheer loss, so that the safest alternative for the grocery trade to adopt is to raise their listed prices directly they see the market value going up beyond a certain point. Waiting for it to fall back into its old groove of unparalleled depression may be delusive, for, amid the conflict of commercial affairs that will probably arise during the continuance of warlike times, it is useless to expect that sugar, any more than numerous other products or necessities of life, will escape the vicissitudes that usually attend a breaking off in the peaceful intercourse that binds one powerful nation to another. It may be difficult to reverse the old habit of manufacturing and selling sugar at an unprofitable or merely nominal rate of return for money laid out, but refiners as well as the wholesale dealers must understand that such a system of trading is as unsound for them as it is unquestionably so for the retailers. And in presence of a mercantile convulsion, such as we are now witnessing, in the prime cost of imported goods, it would be unwise to adhere too long to the previous order of things when unlimited sources of supply were at command, and prices, moreover, seemed to be committed unreservedly to a downward course.—*London Grocer.*

Cuba.

Consul Hyatt gives the following particulars of the productive forces of Cuba in a report, dated January, 1897, to the United States government:

"Cuba stands in a geographical position which, together with her productive soil, mineral wealth and climate conditions, should entitle her to rank among the foremost communities of the world, a distinction to which I believe she will soon attain, whenever a stable government and cheerful obedience to the powers that be present to the home-seeker and investor conditions that will make home pleasant and capital secure. The soil is a marvel of richness, and fertilizers of any kind are seldom used unless in the case of tobacco, even though the same crops be grown on the same field for a hundred years, as has already happened in some of the old sugar fields. If all the land suitable to the growth of sugar cane were devoted to that industry it is estimated Cuba might supply the entire western hemisphere with sugar. The island has already produced in a single year for export 1,100,000 tons, while its capabilities have only been in the experimental stage.

"The adaptabilities of the soil for tobacco culture have long been the envy of the world, until a cigar that has not some pretension of having at least a little Cuban tobacco stands condemned without a hearing. Cuba takes great pride in the quality of her coffee, and until the rebellion of 1868 she raised a large quantity for export. It is the mountainous regions of Santiago, in the eastern part of the island, that are best adapted to this industry,

but the insurrection beginning that year completely destroyed the coffee plantations. They were just getting nicely started again when the present rebellion broke out, and there will probably be but a few, if any, coffee plantations remaining when the struggle ends. * * * In mineral wealth Cuba is capable of taking high rank. Gold and silver have not been found in paying quantities. Copper mines continued in successful operation until 1867. The iron mines of Cuba, all of which are located near Santiago, overshadow in importance all other industries on the eastern end of the island, constituting the only industry that has made any pretence of standing up against the shock of the present insurrection. The ore of these mines is among the richest in the world, yielding from 62 to 67 per cent. of pure iron, and is very free from sulphur and phosphorus. There are numerous undeveloped mines of equal richness and value in this region.

"Railroads and other highways, improved machinery and more modern methods of doing business are among the wants of Cuba, and with the onward march of civilization these will be doubtless hers in the near future. Cuba, like other semi-tropical countries is not given to manufacturing; her people would rather sell the products of the soil and mines, and buy manufactured goods. The possibilities of the island are great, while its probabilities remain an unsolved problem."

Trade Notes.

The Lunkenhelmer Company, of Cincinnati, Ohio, is issuing for the use of engineers a simple and practical chart giving diagrams of a new method of adjusting the movement of the slide valve. Every engineer should have one, as its use will enable him to thoroughly understand the relation between the slide-valve and crank movements without the aid of any intricate mathematical calculations whatever. They will be sent free by the Lunkenhelmer Company, Cincinnati, Ohio, on the request of any *bona fide* engineer.

Mr. L. E. Callery, the prominent planter from St. James parish, and Miss Callery were in the city during the past week. During their short stay they were guests of the Cosmopolitan.

Mr. S. C. Melancon, known all over the State as one of the finest sugar boilers in Louisiana, was in charge during the past season of the boiling department on the splendid Belle View place of Messrs. Underwood, Short & Bell, in St. Mary parish. Mr. Melancon is a courteous and genial gentleman, and is never at a loss for a crop.

Mr. C. Himel, of the Riverside plantation, was in the city during the past few days. Mr. Himel put up at the Hotel Royal.

Mr. Louis Kramer, a well-known planter of Franklin, was in the city on a visit a few days ago.

Mr. Oscar Zenor, a leading planter of Bartels, St. Mary parish, La., was in the city during the past week, on a visit, and registered at the Hotel Royal. Mr. Zenor was accompanied by Mrs. Zenor and Miss Zenor.

MAY 28.

WEEKLY MARKET REPORT.

1898.

SUGAR.	May 21.	May 23.	May 24.	May 25.	May 26.	May 27.	SAME DAY LAST YEAR.	TOKE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice.....	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 3	Steady.
Strict Prime.....	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	2 7/8 @ 2 7/8	
Prime.....	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	2 3/4 @ 2 3/4	
Fully Fair.....	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Good Fair.....	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Fair.....	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Good Common.....	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Common.....	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	3 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Inferior.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	2 1/2 @ —	
Centrifugal.								Quiet.
Plant'n Granulated.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Off Granulated.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ 3 1/2	
Choice White.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ 3 1/2	
Off White.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ 3 1/2	
Gray White.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ 3 1/2	
Prime Yellow.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Good Yellow.....	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Seconds.....	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 @ 3 1/2	
MOLASSES.								
Open Kettle.								
Fancy.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	Steady.
Choice.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior.....	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy.....	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ —	Steady.
Choice.....	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ —	
Strict Prime.....	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 9	
Good Prime.....	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 8	
Prime.....	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 7	
Good Fair.....	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 6	
Fair.....	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	
Good Common.....	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Common.....	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
Inferior.....	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Quiet.
Centrifugals, 96.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated.....	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	4.92 @ —	
Standard A.....	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.10 @ —	
Cuba, 96°, Ctf.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50°.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.....	12s. 8d.	12s. 8d.	12s. 6d.	12s. 6d.	12s. 6d.	12s. 6d.	10s. 9d.	Firm.
A. & G. Beet.....	9s. 7 1/2 d.	9s. 7 1/2 d.	9s. 7 1/2 d.	9s. 9d.	9s. 9d.	9s. 8 1/2 d.	8s. 9 1/2 d.	Quiet.

NEW ORLEANS REFINED

Cut Loaf.....	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	Strong.
Powdered.....	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 4 1/2	
Standard Granula'd.....	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 4 1/2	
Candy A.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C.....	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 4 1/2	
Crystal Extra C.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	May 18.....	Tons	337,297
At four ports of Great Britain to.....	May 14.....	"	73,600
At Havana and Matanzas to.....	May 18.....	"	88,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAY 27, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	98	9,919	973
Sold.....	85	14,900	973

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO MAY 27, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	28,213	1,451,151	190,454
Sold.....	28,149	1,486,991	190,454
Received same time last year....	36,206	1,358,217	220,727

MAY 28.

WEEKLY MARKET REPORT.

1898.

RICE.	May 14.	May 16.	May 17.	May 18.	May 19.	May 27.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, 30 bbl.	8 00@5 85	8 00@5 85	8 00@5 85	8 00@5 85	8 00@5 85	8 00@5 85	— @ —	Strong.
CLEAN, Fancy.	6 1/2@6 3/4	6 1/2@6 3/4	6 1/2@6 3/4	6 1/2@6 3/4	6 1/2@6 3/4	6 1/2@6 3/4	5 1/2@6	
Choice.	5 1/2@6	5 1/2@6	5 1/2@6	5 1/2@6	5 1/2@6	5 1/2@6	5 1/2@5 3/4	Quiet.
Prime.	5 1/2@5 3/4	5 1/2@5 3/4	5 1/2@5 3/4	5 1/2@5 3/4	5 1/2@5 3/4	5 1/2@5 3/4	4 1/2@5	
Good.	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	4 1/2@4 1/4	
Fair.	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	5 1/2@5 1/4	4 1/2@4 1/4	
Ordinary.	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	3 1/2@3 1/4	
Common.	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	4 1/2@4 1/4	— @ —	Nominal.
Inferior.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
No. 2.	2 2 1/2@2 1/4	2 2 1/2@2 1/4	2 2 1/2@2 1/4	2 2 1/2@2 1/4	2 2 1/2@2 1/4	2 2 1/2@2 1/4	2 2 1/2@2 1/4	
BRAN, 1/2 ton.	12 50@18 00	12 50@18 00	12 50@18 00	12 50@18 00	12 50@18 00	12 50@18 00	12 50@18 00	
POLISH, 1/2 ton.	16 00@—	16 00@—	16 00@—	16 00@—	16 00@—	16 00@—	17 00@18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING MAY 27, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received	191	—
Sold	—	510

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO MAY
27, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year	466,519	8,081
Last year	375,810	9,490

Sugar.

The local sugar market was firm at the end of the week, with a good demand and prices well maintained.

Molasses.

No open kettle goods in first hands. Centrifugals steady.

Rice.

The rice market was strong at the close of the week, but very quiet, as offerings were limited.

Talmage on the Rice Market.

The market shows no diminution of activity, on the contrary some large orders have been placed for shipment in weekly instalments down to August, buyers paying fractionally higher prices, beginning early June. Recent vexatious experiences in the matter of delayed deliveries are undoubtedly tending to stimulate a general forecasting of wants; required supplies thereby assured and likewise the best selections from incoming parcels. Receipts are liberal, but as everything is selling to arrive, the market is as bare of "spots" as Mother Hubbard's historic cupboard was bare of bones. Advices from the South note sluggish movement in domestic sorts which are held at fancy figures, as the remnant of crop is meagre and centred in the hands of a few strong dealers. Foreign, as heretofore, is supplying the main call. Cables and correspondence from abroad note prevalence of former features and the tendency still upward. While the general trend of opinion is optimistic, there are a few bat-eyed who, blindly ignoring the existing statistical position, predict lower prices. How can such occur when breadstuffs are dear in every quarter of Europe, is the query of every sane operator.

The situation is the legitimate outcome of a limited supply, which is far short of usual requirements. As present values are not in any wise due to manipulation, nor again as the result of any disturbing incident of the war,

there can be no question as to the future course of the market, and that further advances are likely to be realized during the coming months. During the week there has been a heavy call from Spain, and it is suggested when hostilities over Cuba cease, values will undoubtedly harden, a radical item because of the immense call which is sure to come from that quarter.

Talmage, New Orleans, telegraphs Louisiana crop movement to date: Receipts, rough, inclusive of amount carried over, 536,450 sacks; last year, 570,000; sales, cleaned (estimated), 121,255 barrels; last year, 109,150 barrels. Market dull; all mills stopped pounding. Under light supply prices firm. Foreign in good request.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 59,470 barrels; sales, 58,930 barrels. Summer conditions prevail. Trifling movement in domestic; fair demand in foreign sorts.

Cuba and Porto Rico.

WASHINGTON, May 19.—In response to the demand for information in regard to Cuba and Porto Rico, the bureau of foreign commerce, Department of State, to-day issued a bulletin containing much interesting information, drawn from consular reports and other official data, concerning the geography, products, commerce, railways, debt, cables, etc., of these islands. It includes also detailed descriptions of all the large cities. It is pointed out that if the land suitable to the growth of sugar cane was devoted to that industry, Cuba might supply the entire western hemisphere with sugar. The island already has produced in a single year for export 1,000,000 tons, and its capabilities have been only in the experimental stage. Although settled more than fifty years before the United States, Cuba still has 13,000,000 acres of primeval forests, including mahogany, red wood, ebony and many other valuable woods. In a recent report from Consul Hyatt, the richness of the mineral deposits about Santiago de Cuba is pointed out. American companies, with a combined capital of over \$5,000,000, now operate mines in this vicinity and employ from 800 to 1400 men, shipping to the United States from 30,000 to 50,000 tons of iron ore per month,

most of it going to Bethlehem, Steelton, Sparrows' Point and Pittsburg. These iron ores are said to be among the richest in the world. Mr. Hyatt believes that the old copper mines in the same vicinity, which used to turn out \$3,000,000 worth of copper ore annually for use in the United States, could be worked with profit. The extent of the tobacco and sugar industries are given in detail, although these have suffered seriously as a result of the last three years of warfare. About 80,000 of the inhabitants are ordinarily engaged in the cultivation of tobacco. The Cuban debt is placed at \$295,000,000 or about \$979 per inhabitant.

The description of Porto Rico is especially interesting in the account of San Juan harbor. It states that the entrance to the harbor is one of difficulty and danger, particularly when a norther is blowing. The "boca," or entrance to the harbor, is a mass of seething, foaming water, and presents an imposing spectacle. To see steamers of from 16 to 18 feet draft enter through this seething "boca" is a sight to be remembered, as the great waves lift them up and seem about to hurl them forward to destruction. San Juan is described as a perfect specimen of a walled town, with moat, gates and battlements. The description of the various cities, both in Cuba and Porto Rico, shows that yellow fever and small-pox are everywhere prevalent, that the streets reek with filth, that the water supply is poor and unusually polluted, and that modern sanitary methods are unknown.

Obstacles to a Reciprocity Treaty with Brazil.

The Brazilian Congress was opened on May 3, by the reading of the message of the president, General Campos Salles. In the course of the message the president said that he had refused to renew the reciprocity treaty with the United States, though the government of the United States had asked for its renewal, on account of the great loss in the receipts which was recorded during the year 1897. During that period it appears the receipts were 312,000,000 milreis (one milreis equals 54.8 cents), against 344,989,371 milreis in 1896. The expenses in 1897 were 315,444,000 milreis. The receipts of 1898 are now estimated at 338,120,000 milreis.—*Philadelphia Manufacturer*, May 7.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—POSITION ON A SUGAR PLANTATION as manager or assistant for winter; also next year if everything proves satisfactory; can come October 1 and bring 50 or 100 hands for grinding if wanted; have had much experience in planting and managing labor. Address K., Greensburg, St. Helena parish, La. 5-26-98

WANTED—A POSITION BY AN EXPERIENCED engineer and machinist, thoroughly familiar with all classes of sugar house and refinery machinery, and can furnish first-class references from employers for the past fifteen years. Address J. E., 535 Magazine street, New Orleans. 5-24-98

WANTED—A SUGAR OR MOLASSES BARREL maker would like a position on a plantation, or in the city; can furnish references. Address LOUIS ROGERS, 2901 Bienville street, city. 5-21-98

WANTED—POSITION BY A FIRST-CLASS sugar chemist of long experience, competent to take charge of any department of sugar manufacture; excellent recommendations. Address CLEMENS DOMES, 147 Green street, Brooklyn, N. Y. 5-19-98

WANTED—A FIRST-CLASS ASSISTANT vacuum pan sugar maker; give references. Address, Lock Box 193, Patterson, La. 5-19-98

WANTED—A TECHNICAL, EDUCATED MAN, with three years' experience in Europe, and competent to conduct a beet sugar factory, wants any position where he can make himself useful. Address HOBROC, 46 Cabot street, Boston, Mass. 5-20-98

WANTED—A POSITION AS TRAMWAY EN-gineer. Address A. E. HUTCHINSON, 740 Nashville avenue, New Orleans. 5-20-98

WANTED—A POSITION AS SUGAR HOUSE engineer, for construction, repairs and general work. Satisfactory references as to ability and character. Address A. S. ARMSTRONG, 1026 Jena street, New Orleans. 5-10-98

WANTED—A POSITION AS RAILROAD trackman on some plantation. Address K., St. Bernard P. O., La. 5-10-98

WANTED—POSITION AS WEIGHER OR SIM-ilar for coming season, by experienced man of 35; first-class recommendation; well posted on general office work; also open for any kind of employment at once. Address E., care L. Schuster, merchant, Hohen Solms P. O., Ascension parish, La. 5-3-98

WANTED—A POSITION BY A FIRST-CLASS sugar-house and refinery engineer to do repairs and take off crop; has fifteen years' experience. Address D. W. B., No. 720 Valmont street, New Orleans, La. 5-3-98

WANTED—BY A FIRST-CLASS MACHINIST and engineer, fifteen years' experience in refineries and sugar houses; can give first-class reference. Address HENRY WESTON, 740 Poydras street, New Orleans, La. 4-26-98

WANTED—BY A FIRST-CLASS OPEN KLT-tle, open pan and vacuum pan sugar maker, a position for this coming grinding season; best of references can be given. Apply to FELIX SERPASSE, St. Bernard P. O., La. 4-27-98

WANTED—POSITION ON A PLANTATION AS assistant manager, time or book-keeper; could take charge of a stable; I am a married man, 30 years old; have good references as to habits and capability; all letters will receive prompt attention. Address WILLIAM DETTRICH, Hammond, La. 4-23-98

WANTED—A POSITION WITH A LARGE firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address SUGAR MAKER, care this office 4-16-98

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—A POSITION AS CLERK OR AS-sistant overseer, on sugar plantation; can give best of references as to ability and character. Address 500, care PLANTER.

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommends the best in the State. Address J. FRANZ, Eureka, St. Louis county, Mo. 4-6-98

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. K. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS IN the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98

WANTED—A CARPENTER, WITH LARGE EX-perience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFFE, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. F. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EX-perience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Painscourtville, La. 3-18-98

WANTED—A POSITION AS CHIEF ENGI-neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES PO-sition at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in a plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. K., care LOUISIANA PLANTER. 2-21-98

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address H. G. Hill, Ponchatoula, La. 3-26-98

WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assistant boiler in some large factory. Best of references given. W. B., Box 62, Donaldsonville, La. 3-31-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La.

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBRE, Central, La. 1-20-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 844 First street, New Orleans. 1-15-98

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SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

Vol. XX.

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AND

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6 inch.....	28 00	70 00	105 00	140 00
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Thomas D. Miller,	Wm. Garig,
Schmidt & Ziegler,	Adolph Meyer,
T. G. McLaury,	A. A. Woods,
L. S. Clark,	Bradish Johnson,
J. B. Levert,	George P. Anderton,
Simpson Hornor,	A. L. Monnot,
W. B. Bloomfield,	Richard Milliken,
W. W. Sutcliffe,	W. P. Miles,
John S. Moore,	Lesin A. Becnel,
James C. Murphy,	J. N. Pharr,
Joe. Webre,	Jules J. Jacob.

EXECUTIVE COMMITTEE:

Henry McCall,
Lucien Soniat,
D. R. Calder,
W. B. Schmidt,
Louis Bush,
John Dymond, President

The Louisiana Sugar Planters' Association.

The June meeting of this association will be held on Thursday evening, June 9, at 8 o'clock, at 339 Carondelet street, New Orleans. The subject for discussion is "The Use of Lime and Sulphur in Sugar House Work." Professor Blouin, of the Sugar Experiment Station, and several other gentlemen, will read papers, and one of the most interesting meetings of the year is anticipated. A large attendance is requested and expected, as the gentlemen who have given their time and thought to the preparation of the valuable papers which will be presented deserve the compliment of a large and representative audience. They have labored earnestly and arduously and, moreover, gratuitously, have studied the subject deeply and thoroughly, and should receive all the encouragement that it is possible for our planters to give them. Let there be a well attended meeting, then, next Thursday night.

The Louisiana Cane Crop.

The advent of desultory and local rains in various parts of the sugar district has been hailed with extreme satisfaction by those who were so fortunate as to be thus favored, while those sections which have not yet been visited by them are encouraged to believe that their own turn will shortly arrive. A root-soaking rain is in great demand and would go far to retrieve the undeniably backward condition of the crop. At this writing lowering clouds indicate that rain, and a good deal of it, is not far off. We trust it may not prove a false alarm.

Foundrymen's Association.

The third convention of the American Foundrymen's Association will be held at Cincinnati, June 7, 8, 9, 10. The Philadelphia Foundrymen's Association

is arranging for special train service to Cincinnati for this important occasion and we may be sure that these men of iron will make a good showing in the Queen City of the West.

The iron workers of the United States while thus convening in Cincinnati could hardly do better than to visit Louisiana before returning home, and thus see the vast capacity of this country for sugar production and for the consumption of the excellent machinery our iron workers are so willing to supply to us.

Queer Stock Feed.

It seems strange to many persons in the North that the planters of Louisiana should be feeding molasses to their live stock in such large quantities as is now the custom. Notwithstanding this, however, for perhaps half a century low grade sugar and molasses have been fed in greater or less quantities to live stock in Europe with eminent satisfaction.

The news now comes to us that some of the farmers in Fresno county, California, are feeding raisins to their horses. Barley is worth \$30 per ton, while the cheapest grade of raisins is worth \$20 per ton. The horses take kindly to the change of diet and are thus fed on the raisins or dried grapes, and we presume they do it without any fear of appendicitis.

Shreveport as a Syrup and Molasses Centre.

Through the efforts of one of our correspondents we have secured some data concerning the proposed syrup and molasses refinery and glucose factory which are to be established at Shreveport, La., for the purpose of distributing the saccharine products of the Red river valley, and even of the lower parishes, in that vast area of country tributary to Shreveport, comprising large sections of Louisiana, Texas and Arkansas. Messrs. Penick & Ford, of

Shreveport, who are largely engaged in the sugar business, distributed over a hundred thousand barrels last season in the country adjacent to Shreveport, and are now endeavoring to secure for their city the syrup and molasses business of the same section of country, the demand for these goods having been hitherto supplied from St. Louis. It may seem a little singular, but the molasses coming from Louisiana sugar factories was sent first to St. Louis to be manipulated, with a view of improving its taste, color and general appearance. Very little came from New Orleans direct, as the freights to this territory were generally higher from New Orleans than from St. Louis.

In order to supply this trade Messrs. Penick & Ford have prepared their establishment. They claim to have no use for low grade molasses, such as are made where third sugars are produced. Their raw material is pure syrup, open kettle molasses and good molasses from second sugars. In their establishment the syrup or molasses is usually reboiled to make it less subject to fermentation; they have a large number, more than sixty, different grades to supply dealers according to local preferences. The molasses, after reboiling, is either sold pure, or mixed with glucose to produce the desired color, and it is usually flavored with extracts in order to improve its taste. The molasses used in the above connection is all obtained from Louisiana sugar houses, while the glucose comes from the North, but Messrs. Penick & Ford are contemplating establishing a glucose factory at Shreveport with a view of obtaining the corn from the Red river valley.

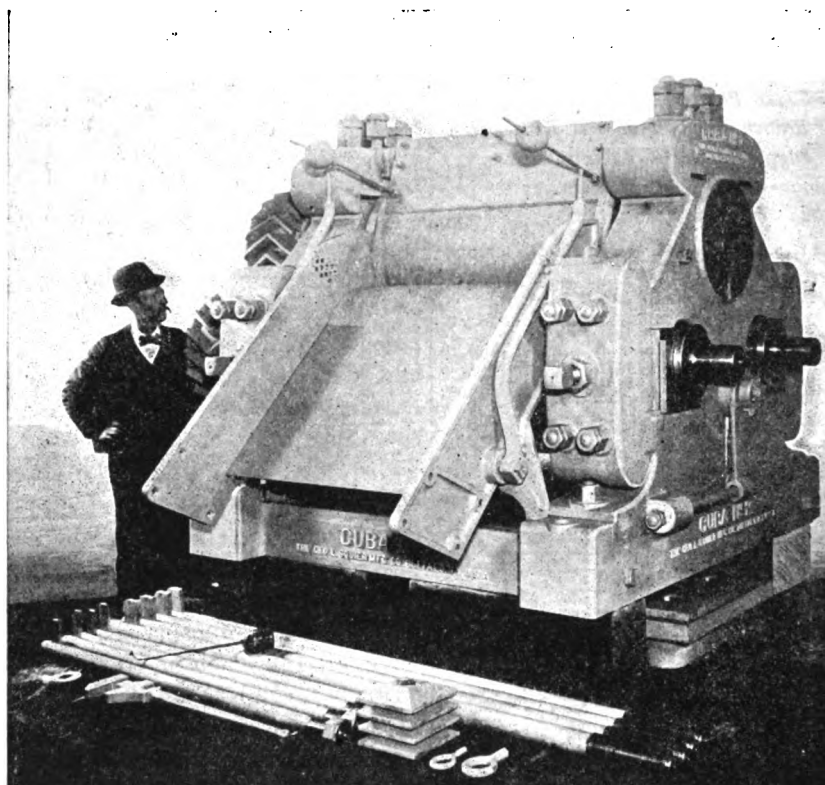
This enterprise during the coming grinding season will afford a market for perhaps more than a hundred thousand barrels of Louisiana molasses, and it is said at higher prices than similar dealers in New Orleans could afford to pay. The factory as it stands can easily manipulate 600 barrels per day of ten hours and with a slight addition its capacity can be doubled. The factory owns a tank car line by which all glucose is received, and will this year be prepared to furnish such planters as have their establishments properly arranged with tank cars so as to avoid the large but unnecessary cooerage expenses, the original barrel being of but little value

in Shreveport, as all the molasses after being manipulated is put up in handsome white oak barrels.

The capacity of the Red river valley for cane growing is simply enormous. A considerable production was developed before the war as far up the river as Natchitoches, but since that time cotton has been considered the more profitable crop. The present low prices of cotton will, however, doubtless concentrate

more attention upon the growing of sugar cane, and the cane products of the valley of the Red river promise to largely increase in the future and become a conspicuous element of trade there, which fact we see recognized by Messrs. Penick & Ford in their large business now established in Shreveport.

Hon. Andrew Price and Mrs. Price were guests of the St. Charles Hotel on Wednesday.



American Cane Mills for Foreign Countries.

We illustrate herewith the "Improved Cuba" Cane Mill, recently designed and built by the Geo. L. Squier Manufacturing Company Buffalo, N. Y., for one of their customers in a foreign country.

A mill was required by the purchaser which should be extra strong and of the latest design and model in the way of construction, finish, arrangement of turnplate, etc. After careful comparison of designs submitted by foreign manufacturers, the contract was awarded to the Geo. L. Squier Manufacturing Company, of Buffalo, N. Y.

The mill is furnished in many sizes, the smallest having rolls nine inches in diameter by fourteen inches long, and the largest having rolls thirty-six inches in diameter by sixty-eight inches long.

The frames of the mills are of a new design, combining strength with an unusually slightly appearance. The shafts, which are placed in rolls under hydraulic pressure, are extra large, those for the 24 x 48 inch rolls in mills illustrated above being 10¼ inches diameter at journals. The journal bearings are also larger than customary, being 14 to 18 inches long, and are made of the best anti-friction metal.

The distribution of metal throughout the mill is such as to secure a correct proportion in all its parts, so that each part, whether gear, frame, roll or shaft, is calculated to a nicety to its appropriate work, and to be subject only to its proportion of strain.

The stay bolts are also of extra size and strength, and furnished with double wrought iron nuts. The roll gears are of double helical type, and flanged. The pinions are also extra heavy and flanged. Rubber springs of special composition are applied in such a manner that they can be used or not, according to the desire of the purchaser.

The Geo. L. Squier Manufacturing Company are to be congratulated upon a mill that both in quality and price merited the order referred to, in face of severe competition from other countries.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: Most portions of this parish have been favored with one or two showers during the past week, greatly to the relief of the entire population, for not only were the crops suffering severely from the drought, but the supply of drinking water for man and beast was running very short. Much more rain is needed to counteract the deleterious effects of the long dry spell, and it is encouraging to note that the outlook at this writing seems favorable for the supplying of this want.

The only planter I have yet met who actually complains of getting more moisture than was needed for the good of his crop is Mr. U. B. Dugas, of Assumption. This gentleman says there was a heavier rain at Sweet Home last week than was desirable. What a pity some of it couldn't have been portioned out to the places in this section that are suffering for the lack of such a visitation.

From all directions come pleasant reports of the revivifying effects of the rain upon the erstwhile drooping crops. Even black land cane that seemed to be actually dying in the fields is looking up wonderfully since receiving the gentle baptism with "the dews of heaven," and if there are occasional repetitions of the welcome sprinkling in the near future, we shall no doubt hear some tall stories of the recuperation and growth of the sugar producing plant in this section of the vineyard. Stubble, as a rule, is in better condition than plant cane, showing the effects of the drought in a much less degree.

The Belle Helene sugar factory in this parish and the Belle Terre in Assumption are undergoing a course of renovation and enlargement that is not very far removed from the construction of entirely new establishments. The main object which the Belle Helene Company and Messrs. Bernard Lemann & Bro. have in view is an increase of the capacity of their factories. The former concern intend to branch out much more extensively than heretofore in the purchase of cane from outsiders. Contracts, for a considerable supply have already been entered into, and a number of others are in contemplation. Messrs. Reuss & Klos are showing a spirit of push and enterprise in this direction that merits success.

The enlargement of Belle Terre's capacity is being accomplished in order that the work of taking off the crop of the Peytavin, Dugas and Perseverance plantations, heretofore done at Peytavin factory, may be handled solely at Belle Terre, thus effecting a considerable economy in running expenses during the grinding season and no doubt insuring better mill and factory results.

Extensive improvements are also under way at St. Emma and Evan Hall, and more or less work is being done, or soon to be undertaken, in nearly all the other factories of the parish.

Last year's cotton crop was doubtless the largest ever produced in this parish. A state-

ment from a reliable source places the output of the several gins at the following figures:

	Bales.
O. A. Bullion & Co., Hope Villa, Stella	
B. gin.....	1,850
Picard & Gelsmar, Dutchtown, Live Oak	
gin.....	1,424
Gonzales Bros., Gonzales, Lena B. gin....	1,106
Picard & Gelsmar, Gonzales, Rescue gin..	1,030
Klos-Gondran Co., Belle Helene.....	1,055
Barman & Dyer, St. Amant.....	707
Total.....	7,172

From these figures it will be seen that, besides occupying a place in the front rank of sugar parishes, Ascension is no small potato as a cotton-producing parish.

Next Tuesday will be "Abapa" day, and there should be an interesting gathering of the planters of

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The drought has been broken, at least to a certain extent, for fine showers have fallen in several parts of the parish. The larger part of the parish however still suffers, and the dust in the towns and villages is almost unbearable. Work continues and the crops are doing as well as could be expected under the circumstances. Those parties who have been favored with rain, it is needless to say, are jubilant, and a rapid improvement in their crops may be noticed. Among the places favored with rain in the last few days are the Laurel Ridge, of Mrs. J. S. Tuttle, in the first ward, and that stretch from Allemania plantation of the J. Reuss Planting Company, Limited, to the St. Louis plantation of the Edward J. Gay Planting and Manufacturing Company, Limited, both included.

The crops on Mr. L. M. Soniat's Cedar Grove and Whitecastle plantations are looking well, in spite of dry weather. This fact is due, Mr. Soniat says, to his system of irrigation—with the hoe and cultivator. Some of the corn planted in land where seed cane had been put down was fertilized with a new lime fertilizer, and is the largest and finest corn on the place, and Mr. Soniat is well pleased with it.

The sugar house on which will be made the greatest improvements this year is that on the Myrtle Grove plantation of Messrs. Frederick and John Wilbert, of Plaquemine. These gentlemen never do things by halves. Besides the new mill to be built by the Fulton Iron works, they have contracted with Messrs. Haubtman & Loeb, of New Orleans, for a 9-foot vacuum pan, six clarifiers, four filter presses, two lime mixers, one triple lime pump, one 16-foot juice tank, etc. The sugar house will be remodeled and modernized in all of its parts, and in extraction and efficiency will cope with the best. A large stable has lately been erected on this place and miles of new ditches are being dug. A large force of mechanics is kept constantly employed, and it is now a difficult task to find an idle carpenter in the parish. Myrtle Grove will be in the market for all the cane raised on Bayou Jacob and a bright future is in store for the farmers in that section. The crop on Myrtle Grove is in a flourishing condition, but it needs rain.

Mr. Charles Tircuit, of St. James, is again in our parish, and rumor hath it that he will soon resume the cultivation of sugar cane here.

Mr. John H. Murphy, of New Orleans, a prominent contractor and manufacturer of sugar house machinery, was at Plaquemine last Saturday looking after several contracts in that neighborhood.

The amount of corn raised on Nottoway plantation last year was 6600 barrels instead of 660 as reported in last week's correspondence.

Your correspondent has lately visited portions of Grant and Rapides parishes. The weather has been more favorable there than in Iberville, and a bountiful rain fell a few days since. Crops look well, particularly the corn. Patches of cane could be seen all along the roads, and the question of establishing a central factory at Alexandria is still being agitated. The oil companies in that section pay only \$5 per ton for cotton seed. It will be seen that the prices the sugar planters are charged for meal is entirely out of proportion. There is no wonder then that dividends of 25 per cent. and more can be declared annually by these corporations.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: The drought that has prevailed in this section since April 19 was broken yesterday (Thursday) by a rain which, though not sufficient for all purposes, was of great benefit to the parched crops. For several weeks the situation here has been serious. A few fairly good crops were found here and there, but the cane, taken as a whole, was in a bad condition. Much of it in black land had begun to wither and die; yellow leaves were found in abundance, even in sandy land. In short, the entire crop is exceedingly backward. It therefore necessarily follows that the planters will be late—later than ever before—in laying by the crop. The only favorable feature of the situation is the fact that the crop has been thoroughly worked, the fields presenting the appearance of well-tilled gardens.

The condition of the corn crop is regarded as being almost desperate. In some fields corn can be seen tasseling with the merest "nubbins," or no ears at all on the stalks. Like cane, the entire crop is small and decidedly backward. From present appearances our planters will be fortunate if they make half a crop. Just what effect yesterday's rain will have on the crop, to what extent that rain was general, and how much more we are liable to have in the near future, are problems that time alone can solve. Meantime everybody is hoping for the best in

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: At last the drought has been interrupted by light rains, although the lower portion of the parish is still suffering. The upper part, however, has been greatly favored and in consequence there is a marked difference in the appearance of the

crops. Nowhere has there been a sufficiency of rain, even where there has been the heaviest fall, but the effect where there has been any at all has been wonderful, and the thrift of both cane and corn, the deep rich color, all show that its recovery from the effect of the prolonged dry weather is almost miraculous. In the neighborhood of Tallieu P. O. there was but little rain, but as the clouds are again lowering we trust that they will soon be blessed with abundant showers. Previous to the rain the plant cane was in some black land actually dying for the want of moisture, and, as a planter remarked to me, the corn at midday curled up like cigarette papers when rolled. The peas too were lying idle in the ground, and it is feared that the rain has come too late to insure a perfect stand. A ride this morning from Woodlawn to Elmfield revealed some very fine crops, notwithstanding the drought, and they have certainly been beautifully worked. Rosedale has some stubble that is almost large enough to lay by, and Made-wood's field looks green and flourishing. It is needless to speak of Elmfield, as Mr. Monnot never had a poor crop. Like the Irishman's whiskey it is always good, though sometimes better than at others. The corn crop promises everywhere to be unusually good, and with a few more showers it can be called safe.

A ride through Magnolia showed a fair crop despite the long-continued dry weather—in fact the cane is just fairly feeling the effect of the fertilizers applied, there not having been enough moisture in the ground hitherto for the crops to assimilate the nourishment therein contained. Mr. Barton will have nearly a new house when he completes his present additions. He says that he is building to suit himself, and will have ample room and plenty of light—two requisites sometimes neglected in these days when space is money. We were shown some third sugars that were being dried out, and they were remarkably fine, reflecting great credit on his sugar maker. As they sold on the open market at above quotations, viz.: 4½ cents per pound, it follows that they are hard to beat.

Miss Helen Dodd, who has been spending some time at Magnolia, will return in a few days to New Orleans.

Mr. Barton speaks next year of extending a track to his back place, which he contemplates putting into cane at an early date. Major Burbank is hard at work erecting his improvements, and will have a model house when completed.

We understand that the railroad has secured most of its rights of way, and that it may extend to Glenwood the present year. Work is going rapidly ahead in the grading of it, and every one hopes that it will be soon ready for business. The small planters will reap the benefit of competition, and if the road deals fairly with the people it will be a great blessing to all. The inauguration of two daily boats from Donaldsonville to Napoleonville evinces the spirit of enterprise that is so commendable. Having two daily mails, as well as affording passenger and express facilities, it is to be hoped that success will crown the efforts

of the public-spirited men behind this new undertaking.

A recent visit to Grand Bayou shows that with proper pumping facilities much rice can be raised in this neighborhood. The present price of this cereal, as well as the strong market for sugar, afford much source of congratulation to the agricultural community. As I write the gathering darkness and distant thunder indicate the near approach of a welcome shower, and it is to be hoped that it will be general and heavy. A hailstorm of some little severity, but local in extent, was a visitor to our parish last week.

The rains are needed not only for crops and gardens, but people as well. Stock have suffered inconvenience for lack of water, and there has been some little sickness experienced, due in part at least to defective water.

Mayor Paul Leche, of Donaldsonville, is in Napoleonville to-day, and reports Ascension to have had some good showers of late.

Mr. Flower, on Woodlawn, irrigated from the Lafourche a few arpents of stubble to its great benefit. But of this MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Local showers have fallen in some portions of the parish, yet in others there has been a noted absence of rainfall, and this May has proved one of the driest on record. The lower portion of the parish has suffered more for want of rain than parts of the upper; and drinking water for man and beast has become scarce, as the water in the lower bayous is brackish. But for the strong south winds from the gulf the heat would have proved very oppressive—the latter part of the month having been warmer than ever experienced during May in the past thirty years. Many labor under the impression that this has been a phenomenally dry season; yet it can not compare to the spring of 1870, when there was in this parish only a light shower from the beginning of March until after the middle of June.

That the majority of the fields of cane are small for the 1st of June must be freely admitted, particularly the plant canes, which have been retarded by the dry weather more than the ratoons, yet the crops have a much better color than one might expect under the circumstances, as the majority of the fields were in bad condition when planted.

On numbers of places sufficient rain has not fallen to cause grass seeds to germinate, but where such has been the case, cultivators, ploughs, etc., are busy destroying the young vegetation and some are beginning to virtually lay by, fearing that the rainy season may set in this season before the month of July. As a rule the corn crop is small for the season, yet the color can not be complained of, particularly in the low fields, where the crop often suffers from an excess of moisture.

The crops on the lower Bayou Black, on the Orange Grove, of Messrs. Dupont & Jollet; on the Flora and Belle Farm, of Mr. C. W. Bocage, and on Waterproof, Lucerne Farm and Roseland, of Mr. John D. Minor, have

had but little rain, yet they are, as seen from the road, small in places, yet superior to last year, particularly on Flora and the latter three places.

The dredgeboat W. L. Shaffer was seen at work about a third of a mile below the residence on Orange Grove. The boat has been altered and now has a boom of seventy feet, with which the mud is deposited in the public road on the lower side of the bayou. The boat is now about four miles above where a canal was cut into the Bayou Tiger basin. A little below where the boat is now operating the distance to the head of Bayou Tiger is only about eight acres. A canal cut there from the Black to the Tiger bayou would give tide level to the basin and benefit the owners on the upper and lower Black on each side; particularly if the Southdown dredgeboat should operate down as far as Orange Grove. Conjointly the work could be done at comparatively small cost to interested proprietors.

Wednesday of last week was fine in the morning, with local rains in the afternoon; Thursday partially cloudy and very warm; Friday fair before noon, with local showers later; Saturday clouds and sunshine and extremely hot; Sunday and Monday partly cloudy; Tuesday heavy fog, with local rains in the afternoon; Wednesday heavy fog, with white caps in the south, indicating showers. The official weekly report from Schriever is as follows:

	Temperature.		Sunshine.	Rainfall.
May 23.....	91	65	.50	.41
" 24.....	93	62	100	.....
" 25.....	94	64	100	.....
" 26.....	96	74	100	.....
" 27.....	95	68	100	.....
" 28.....	97	65	100	Trace.
" 29.....	92	64	100	.....
	94	64	.93	.41

TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The weather still continues dry and hot; it is so dry, in fact, that corn is dying and cane is turning yellow. It has not rained enough here for the past six weeks to wet the surface of the ground. Farm work is at a dead standstill, and farmers are nearly as completely wilted out as the crops. Unless rain comes to our assistance within the next few days early corn will be a complete failure and cane will have received a backset that it will be almost impossible to recover from. Slight showers have fallen in some parts of the parish, but the ground being so very dry the effects were of short duration. In the adjoining parishes north and west, we understand that good rains have fallen within the last few days, and with the thermometer registering 90 deg., as it has been here, it should soon visit us. Cotton is the only plant that does not seem to be suffering for rain. Providence rice is dying; that is, that part of it which was planted early. The providence crop is not more than half planted, and it is absolutely useless to attempt to seed any more till it rains. Rice along the several canals is looking splendidly, and it is not at all suffering for water. Messrs. Wise and Lyons have several hundred acres just

west of Abbeville that they are flooding now. They are also prepared to furnish water to a number of their neighbors in the immediate neighborhood. We are informed that the Vermilion Development Company has started their immense plant to work in West Vermilion, and are now pulling over 200,000 gallons of water per minute from the Bayou de Queue Tortue. They will be able to furnish all the water necessary for the rice in the neighborhood of their canals. A part of the machinery for the Hall-Slutz Irrigating Company has arrived and has been carried down to their pumping station on Little Bayou on the steamer *Why Not*. The pumps for this canal have not arrived yet, and their being late will cause considerable damage to the rice along the canal, which is now large enough to have an inch of water on it. Mr. G. W. Hall, of the company, told the *PLANTER* correspondent a few days ago that it would be the 20th of June before the pumps would be in working order.

Civil engineers have been working diligently for the past ten days in West Vermilion, for some purpose, we know not what. It is reported that they are taking observations and levels for a railroad, but they will not commit themselves. However, we know that it is for some proposed improvement that may be looked for at some day not far in the future.

Mr. A. C. Hall, of the Hall-Slutz Irrigating Company, is in town attending to business pertaining to the canal.

Mr. W. H. Lovegrove, vice president of the Hall-Slutz Company, was in Abbeville this week. Mr. Lovegrove has headquarters in New Orleans.

Mr. Adrien Nunez, of Live Oak plantation on lower Vermilion, spent several days in Abbeville the past week.

Mr. J. T. Gillentine, of Wright, La., a merchant and prominent rice planter of that place, was in Abbeville on business a few days ago.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: The prevailing opinion to-day expressed by the farmers who cultivate the rich soil bordering on Bayou Boeuf in St. Landry, Avoyelles and Rapides parishes is that unless the weather soon changes so that they can get more rain, the corn crop will practically be a failure.

THE *PLANTER*'s scribe was at Barbreck on the 27th and 28th of May, and while there was pleased to meet and converse with not a few of the foremost planters and farmers from the surrounding country, all of whom seemed anxious for rain, but moreso for the benefit of corn, than cane or cotton.

The cane crops on Barbreck plantation and adjoining places, from all reports furnished THE *PLANTER*'s correspondent, are as promising as could well be wished for, when we take into consideration the extreme dry weather which prevailed through the month of May. The crops of corn, cane and cotton on Barbreck, under the management of Mr. Henry Shaw, assisted by Mr. Win. H. Lewis, have been worked with care and present a fine

appearance. The cane in particular is very promising considering the past four weeks of prevailing dry weather in which it has had to grow. Mr. Shaw has just finished harvesting a crop of splendid oats, which, if threshed, would have measured from 1000 to 1200 bushels. While I do not intend to criticise the methods employed by any one in the harvesting of grain or other crops, I can not but believe that it would be money in the planter's pocket to employ some good make of harvester and binder instead of the mowing machine when cutting oats, rye or millet.

Mr. J. H. Phillips, of the firm of Phillips & Haynes, merchants, Barbreck, has on his fine place fifty-four acres of as promising plant cane as any one might wish to see at this date and season of the year, and thirty acres of first year's stubble presenting a decidedly fine appearance, besides 100 acres to corn, which has been neatly worked, but shows signs of wanting rain—in some places seriously so. Eighty-eight acres to cotton is very promising, but a rain would be beneficial to it.

Mr. Phillips informed me that he had found nothing better than the pea for building up and fitting his soil with matter to promote both growth and sugar into the canes.

With regard to the cultivation of cane, Mr. Phillips says that he finds subsoiling the middles of his cane rows, just before or at laying by highly beneficial, not only to the land, but it adds materially to the growth of the cane by promoting root growth, which nature demands to fully sustain and promote life and perfect maturity.

These columns, as far as I now remember, were the first to call attention to the advantages to be obtained through subsoiling the middles between the growing canes, and if I mistake not, Mr. C. G. Fuselier, manager of the Powhontas plantation, was the first planter in this part of the country to adopt this method in treating cane. I am pleased to find, but not claiming any credit for the same, that there are many others besides Mr. Fuselier who now acknowledge the beneficent effect brought to their crops through the employment of the subsoil plow just before or at date of laying by cane. But to return for a moment to Mr. Phillips' fine place, I have to mention that his fields are in easy hauling distance of the Augusta sugar factory now under construction. Mr. Phillips will increase his acreage to peace for planting cane next year and grow less cotton.

The Anchorage plantation one of Mr. J. M. Payne's fine places, situated just below Barbreck on Bayou Boeuf, St. Landry, has recently been purchased by Messrs. Young and Hymel, of Centreville, St. Mary. Anchorage plantation is managed this year by Mr. Lewis Campbell, and the crops on the place are good from beginning to finish. At present it is understood that Messrs. Young and Hymel will put in a sugar factory next season, there not being sufficient cane in sight to justify building the factory this season.

It was my pleasure to meet on the 28th ult., Mr. J. B. Cobb, manager on the Adeline plantation, St. Mary. From Mr. Cobb I learned that the planters of St. Mary were looking

anxiously for rain. Cane on Adeline was growing well, and was as promising as it could be expected when taking into consideration the extreme dry season which has prevailed since February. If I am not mistaken Adeline has some 1600 acres to cane and 1000 to corn, all of which is in a fine state of cultivation, but needing rain. The plantations in the vicinity of Adeline have prospects for a heavy cane harvest this coming fall providing the seasons are propitious for growing cane.

ERIN.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: Our parish has since last week been visited by two showers, but neither proved of any consequence, and notwithstanding the overspreading clouds that daily seem to be ready to drown the earth, we are still in suspense. In some places not a drop of rain has been seen within the last two entire months, and the consequences are of a most dreary and discouraging nature, as some of the canes are actually parched and the planters say they do not think any power can bring them back to their natural condition. Last Wednesday again brought some rain to our parish, but merely to the lower sections, and we trust that the local condition of these showers will extend more generally these June days, which are naturally of a showery nature.

The corn crop has suffered from lack of moisture more than the other; still in some places it is doing quite well.

The course of improvements at the Uncle Sam factory is brought to our attention by the erection of a new smokestack and the work on the outside for the double effect is also visible in the distance.

During the strong wind that preceded last Wednesday's shower the old sugar house of St. Elina plantation, which is now rented by the Messrs. Callery Bros. for rice, was crushed down and demolished. Some persons who were from the field had taken shelter under its roofs to protect themselves from the approaching storm and came within an ace of losing their lives by the crash.

If we can judge of the pecuniary state of affairs by the many pretty residences that are now in course of construction in our parish, money must be plentiful, or at least the prospects are promising.

Mr. Camille Jacob, the former owner of one-half of Uncle Sam plantation, is having an elegant mansion built on his property adjoining the upper line of the Convent Villa, which promises to be quite an addition to the beautiful, progressive little town.

Before this goes to press we hope that rain will visit and benefit our vicinity.

CONVENT.

Mr. L. F. Suthon, of Houma, La., was a guest of the St. Charles on Monday last.

Mr. H. C. Boas, of Terrebonne, was in the city on one of his customary visits during the past week and put up at the Royal.

Mr. L. E. Callery and Miss Callery, of St. James, registered at the Cosmopolitan on Monday.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, May 14, 1898.

Editor Louisiana Planter: The weather during the month of May is in this climate considered to be favorable to the crops and for vegetation in general, when it is cool and wet, and as in the week under review, such has been the case in the full meaning of the word. The weather, from the standpoint of the agriculturist, should not be blamed, although it rained in many sections so fast that floods have ensued, and although the temperature ranks to such a point as to check entirely the progress of vegetation. It may be, however, admitted that the inclement weather we have endured will ultimately prove beneficial for the cereals in the fields, though for the beets it appears rather adverse. The rains, in some places intermitting, in others continuous, have greatly delayed the sowings of the sugar plant, and the instances where they are finished, or nearly so, are very rare. As to the germinating and coming up of the young beets—that is to say of those few which have been sown comparatively early, no complaints are heard. The stand of them is even reported to be very complete, and if the insects now coming forth do not cause considerable harm to the plantings, the prospects so far and for this part of the crop are not bad. The cold and wet weather described above has this week extended to all beet countries of Europe, except Russia, who, benefited by drought and warmth, has been able to finish her beet sowings. However, France, Austria, Holland and Belgium have more or less suffered, and the return of more genial weather is anxiously desired, although in each of these countries the beet culture this year is further advanced than in Germany.

An Austrian consular report from Galatz, Roumania, says that beet culture in that country will be fostered as much as possible, although many experiments have proved downright failures. For tilling the ground near the factory of Baku, where an area of about 500 hectares is intended to be used for beet production, a gang of twelve hundred workmen has been engaged in Transylvania and in Galicia, and in the face of the bad experiences suffered in late years with other crops, and in consequence of the stimulus given to beet culture and sugar production by the government, beets will be grown wherever railroad facilities offer themselves and where climatic and financial conditions can be considered favorable for an enterprise of this character. At present the country is depending almost exclusively on the outturn of the wheat crop, but it has been found that beets are paying a much higher income. One hectare of wheat when cultivated in the manner there in common use, without application of stable or artificial fertilizers, yields 1.2 to 1.5 tons of wheat, which are worth ex railroad depot, 170 francs. On the same surface, however, it is said that 20 to 25 tons of beet can be grown, which are valued at 550 francs at railroad station. If now 20 francs for straw are added to the for-

mer crop, and deduct 120 francs as cost of production, the clear profit per hectare is 70 francs. The cost of growing beets is of course much higher. It amounts to 353 francs per hectare, but nevertheless the profit is much larger, amounting to about 200 francs. Based on this calculation, which is said to be made up as exact as possible, extensive trials will be undertaken and have been made in some districts already, the latter resulting in an average weight of the grown beets of 1 kilogram and 14.58 per cent. sugar, which, no doubt, for a beginning, is quite satisfactory both in quantity and in quality.

The government of Egypt has consented to the sale of the sugar factories belonging to the Daira Sanieh, crown estate of the Khedive. The buyers are a syndicate of English, French and Egyptian capitalists. The price stipulated for the transaction is £6,000,000 (Egypt), or some \$30,000,000. Besides, it is reported, that also in Egypt experiments will be made with beet culture in cane fields south of Hawanidieh. A sugar factory belonging to the Paris firm of Say & Co. is to be used for the purpose.

The society for the support of technical and administrative officers of sugar factories of the Austro-Hungarian monarchy at Prag embraced, according to their last annual report in 1897, 890 members, amongst whom the technicians numbered 594. By the mediation of the society, 59 persons obtained places in sugar factories, and the sums spent for the support of needy members amounted to 4572.51 florins and besides 331.06 florins was granted in loans. The total receipts reached in 1897, 14,584.87 florins, whilst the expenses amounted to 8553.52 florins, so that a surplus of 6031.35 florins results. The entire assets of the society inclusive of the above surplus is stated to be now 48,280.72 florins. This society is no doubt a great blessing to the Austrian officership of sugar factories, and the institution merits both praise and imitation where similar arrangements are not yet called into life. In Germany, partly under the influence of the Austrian example, a like society was founded some years ago.

The bounty conference, which you know will take place at Brussels, is now moving more in the foreground of interest. It is reported that the delegates of those powers who are in favor of an entire abolition of the bounties will hold a preliminary conference in order to draw up a motion to that effect. The first meeting will be held on June 7. with the prime minister, Smet de Nayer, in the chair.

The importation into Great Britain in the month of April was about the same as in the same month last year, viz.: 132,458 tons raw value, as against 134,419 tons in 1897. In the first four months of the year 489,530 tons have been imported into England, as against 429,870 tons in 1897, which means an increase of nearly 60,000 tons.

The markets last week several times slightly fluctuated, which generally occurs when the tendency offers no special feature. Some difficulty in placing May tenders caused a light pressure, while at the end of the week the cold and wet weather was the reason for a recovery

and finally of an improvement, the market becoming firm and prices even rose a little beyond the level of last week's quotations. In Magdeburg 88 per cent. rendement prompt delivery at 10.25 and 10.50 marks, and Hamburg quotations for delivery May close at 9.375 marks f. o. b. Refined opened quietly, but strengthened later on also, but without any change in prices.

ROBERT HENNIG.

Is "Dulcin" Saccharine?

A question which involves a very large amount of customs revenue is about to be taken up to the United States Circuit Court on an appeal by the Treasury Department from a recent decision of the Board of General Appraisers. This question is whether an imported compound commercially known as "dulcin" shall be classified as saccharine and assessed for duty at \$1.50 per pound and 10 per cent. *ad valorem*, or whether it shall be admitted to our ports at 25 per cent. *ad valorem* as a chemical compound. In the case of an importation of "dulcin" by a New York drug firm the United States Appraiser classified the merchandise by similitude as saccharine and imposed the duties prescribed by the tariff act.

The importers took advantage of their right of protest and carried the case to the Board of General Appraisers. There they made a strong plea for the classification of "dulcin" as a chemical compound, and they succeeded in impressing their views on the board. In deciding that "dulcin" should be assessed for duty as a chemical compound, the General Appraisers explained that saccharine and "dulcin" were both made from coal tar, and although similar in appearance, character and use, each was a distinct article manufactured by special processes. The board admitted that "dulcin" might be classified by similitude as saccharine except for its enumeration as a chemical compound.

The Treasury Department declined to accept the decision of the General Appraiser as final. To all intents and purposes "dulcin" is saccharine, and is so admitted by all persons who handle it commercially. A heavy duty was purposely put on saccharine because the framers of the tariff act believed that that article of merchandise could well stand it. A large quantity of "dulcin" is imported annually, as also are large quantities of similar sweetening matter under different names. The Treasury Department takes the ground that in justice to the government it can not afford to concede that "dulcin" is entitled to our admission to ports at a low rate of duty as a chemical compound. If "dulcin" is permitted to come in under that classification there are half a dozen other species of saccharine that will demand the same privilege. Saccharine reaches this market under the following names: Hudra sugar, pulin, benzolic acid sulphanide, neo saccharine, zuckerine and phenol tolcarbamid. To admit all of these articles at 25 per cent. *ad valorem* instead of at \$1.50 per pound and 10 per cent. *ad valorem* would, it is claimed, cut a very large sum out of the annual revenues of the government.—*American Economist*.

BEET SUGAR.

Chino, California.

Had this week's rain come a month earlier it would have increased the planting of beets on the Chino ranch 3000 acres. As it is, it has been a glorious rain, a blessing to the country, and of immense benefit to our agricultural interests.

A number of fields of beets have been planted this week on the strength of the rain, and in many other fields in which the seed was lying dormant, the green rows of young beets are already seen.

It is estimated that this rain will increase the acres of good stand by 500, and the total yield on the Chino ranch by 10,000 tons. This increase comes not only from the new planting, but from every acre already planted. On a large acreage considered doubtful of any crop at all, a good crop is now assured, and on a very large part of the acreage planted the yield will be doubled. There are scarcely any fields on which the yield will not be increased by this rain. The ground is well soaked, and the cloudy, damp weather since the rain has caused the moisture to go down deeper, and there has been little or no loss by evaporation. All in all, the prospect for a beet crop has improved nearly 50 per cent. in the past six days.

The unexpected usually happens, and the rain of Sunday was in that line. Commencing early in the morning and continuing until about 2 P. M., 1.28 inches fell, thoroughly soaking the soil. This is the heaviest rain we have had this season. Although it comes too late to save some crops, it will be the making of others. Hay is generally past benefit, but beets, sorghum, Egyptian corn, pumpkins, alfalfa and such crops will reap an immense benefit, more especially on account of the cloudy, damp days following the rain. An irrigation is saved orchards, and the water supply from the mountains for the summer is greatly increased. The benefit of the rain in this valley probably could not be covered by \$50,000.—*Champion, May 20.*

Lehi, Utah.

This valley is enjoying another beautiful rain. We are having much more rainfall than usual. Up to last night there had been over five inches fall during the past four weeks. This is an exceptional record for this section. The sugar factory people and farmers are much pleased with it. The field crops are looking splendid and seem to presage an abundant harvest.—*Banner, May 17.*

Watsonville, Cal.

The long dry spell was broken last Saturday, when a fine rain storm set in and continued to Monday afternoon. Precipitation in the Pajaro valley and in the beet districts of the Santa Clara valley and around Castroville, in the Salinas valley, was from one inch to one inch and three-quarters. The rain came at an opportune time for the young beet crops. The soil now has an abundant reserve of moisture and the beets are growing as if by magic.

An excellent crop is assured on over 8000 acres of land, which will furnish a full run for the Watsonville factory. The rain came too late to make beets at Salinas or around Hollister, although a few hundred additional acres will be saved on the Cooper ranch and in this valley.—*Pajaronian, May 19.*

Sugar Beets in Florida.

It is passing strange that any should raise the question as to the advisability of cultivating sugar beets in Florida, when other industries that have been demonstrated to be profitable go undeveloped—industries that time and again have been referred to in the columns of *Florida Facts* and other newspapers of the State.

Whether sugar beets can be made a source of profit to Florida or not is not a question for serious consideration while thousands of acres of the best land in the world for sugar cane lie uncultivated within the borders of the State, and the demand for Florida syrup and Florida sugar is unlimited.

This everlasting hankering for something to experiment with, while other well-trying and profitable industries are neglected, is well calculated to make one weary, and no other people on the surface of the globe would throw away the opportunities that surround Floridians at every turn in order to experiment with some new thing.

The cultivation of sugar beets, India rubber trees, cork wood, camphor trees, castor-oil bean, canaigre, ramie, and other things that have from time to time been brought forward for special attention, would all be very well if there were not other and more profitable industries right at our hand awaiting further development.

What does Florida want more than sugar cane, tobacco and sea island cotton, to make her one of the most prosperous States in the Union? These three industries alone, if properly developed, will yield more gold than the newly discovered mines of labor, and less privation of all than Alaska, and with less expense, and makes life worth living. And then, what shall we say of oranges, lemons, pine-apples and other semi-tropical fruits; the products of our vegetable gardens, our turpentine forests, fisheries and other industries that are no longer experimental?

Is it not enough? Surely there never was a people more highly favored or a land where labor rightly directed promises better returns; possibly there never was a people so little disposed to avail themselves of the full measure of privileges offered by a generous soil and climate.—*Facts.*

Trade Notes.

The Mason Steam Pump.—THE PLANTER has received from the Mason Regulator Company, the well-known manufacturers of steam-pressure regulators and reducers, whose advertisement in our columns our readers are familiar with, their new catalogue describing the Mason steam pump. As this company has been engaged for so long a time in the manufacture of high-grade steam devices, they

claim now to be able to turn out a steam pump made from only the finest of raw materials, which are skilfully worked by carefully trained mechanics. They say they stand behind their pumps in every respect and recommend them to pump users, knowing that they will fully satisfy every legitimate demand made upon them. They claim that the pump will do more work, with less steam, and less wear than any other pump produced, and invite correspondence concerning them, and they will be glad to respond to inquiries and to send descriptive catalogues. Their address is The Mason Regulator Company, 6 Oliver street, Boston, Mass., U. S. A.

The Velvet Bean Question.

Editor Louisiana Planter: One of your Florida correspondents seems to have a rage against velvet beans. They are being so extensively cultivated that they can be bought for \$1.25 a bushel, and there is now a machine to shell them. The consequences will be low prices for them in the future. I gathered three pecks, shelled, from a patch fifty feet square, after letting my horse graze on it.

My experience with leguminous crops on the sandy lands of Florida is that they do not restore the land as they do in Louisiana. I have been interested here many years, and have some experience, though I have been much of the time also in Louisiana. My father used pea vines, to my recollection, as far back as 1858, as did also other Iberville planters, so pea vines are not at all new. I don't see why your correspondent has such an antipathy to beans, unless he is interested in selling commercial fertilizers. The velvet beans are most excellent stock feed, and my horses will leave corn and oats to feed on the dried beans. The Germans at San Antonio have them ground into meal, and say they are good and a good substitute for coffee. I believe that the velvet beans will be a benefit to Louisiana. P.

San Antonio, Fla., May 20, 1898.

Government Whitewash.

Whitewash as used by the United States government is prepared as follows: Take half a bushel of unslacked lime, slack it with boiling water, cover during the process to keep in steam, strain the liquid through a fine sieve or strainer, and add to it a peck of salt, previously dissolved by soaking in warm water, three pounds of ground rice boiled to a thin paste and stirred in while hot, half a pound of Spanish whiting and one pound clean glue, previously dissolved by soaking in cold water and by the hanging over a slow fire in a small pot hung in a larger one filled with water. Add five gallons hot water to the mixture, stir well and let it stand a few days, covered from dirt. It should be applied hot, for which purpose it can be kept in a kettle or portable furnace.

The east end of the White House at Washington is embellished by this brilliant whitewash. It is used by the government to whitewash lighthouses. A pint of this whitewash mixture, properly applied, will cover one square yard, and will be almost as serviceable as paint for wood, brick or stone, and is much cheaper than the cheapest paint.—*California Fruit Grower.*

Fall Planting and Planting Economies.

[Special Correspondence.]

Editor Louisiana Planter: Having made a special study of the cane planting department of our sugar industry dating from the year 1873, I read with great interest the paper read before the Louisiana Sugar Planters' Association, May 12, by Dr. W. C. Stubbs, and the discussion which followed, by prominent planters.

The result of my experience convinces me that the fall is the proper time to plant *under existing conditions*, providing the cane has reached a sufficient degree of maturity, as of all evils in planting, deliver me from immature seed cane.

According to my experiments, observations and judgment, the proper time to start planting is about the 10th of October, continuing to a finish. At this time there is always cane sufficiently matured to make good seed. Then at that time the canes are stripped of their foliage with greater facility; there is no danger of breaking or bruising the eyes, little or no injury to stubbles, no expense of putting down seed, and hence no expense in taking up and planting in the spring when we ought really to be cultivating.

By starting to plant at the above time you avoid the hot, dry fall or reduce it to a minimum. My experiments at different times positively convince me that Dr. Stubbs is perfectly correct in advising the planting of two continuous stalks of cane. They also convince me that the filling of the furrow with four, five and six stalks of cane is more of a habit than a necessity.

It was my good fortune to be employed in the years 1875 and 1876 by the late Wm. H. Ballard on the Chatham plantation. His experiments in putting down seed cane and planting were very many every year. I will state here that as good cane as we had for the mill in 1875 was cane planted with one continuous stalk. This was an experiment. Next to it we planted two stalks, lapping half way, making four continuous stalks; little over half acres of each were planted in good land. We did not weigh cane then, but the one-stalk plant gave 13 loads and the other 12 loads. We put down seed cane for 1876 on the basis of two stalks without lap; we planted that way and made a fine crop.

In the year 1886 I had a complete failure in plant cane, using green, immature seed of both fall and spring planting. This was on the Alhambra plantation.

In the year 1888, on the Augusta plantation, I had, I think, $9\frac{1}{2}$ acres of seed, and planted, I think, 78 acres, not averaging two continuous stalks. They were planted late in the spring and made a fine crop. By consulting Bouchereau's sugar report, it can be seen what these three different crops were.

My conviction about *suckers* (I mean cane suckers) is that the part nature takes in them is generally underrated. I positively believe that we can depend upon them for any deficiency resulting from the planting of two stalks, especially so in fall planting.

By this I mean, first, the land being in better condition, the drainage also better, the labor being more skilled, new and improved implements, being in use such as our large pea vine plows, large rollers, advance plows, disk cultivators for pulverizing and covering, and, above all, the now famous Comeaux cane cart planter, making cane planting a pleasure instead of a punishment. Three and one-half tons will give you all the stand you need, and without gaps. It is impossible to not make a day's work with the Comeaux cart. They are drivers of themselves; no more waste of cane or time. Very many prominent planters and cultivators will testify to the above facts.

Respectfully yours,

U. LUCAS COMEAUX,
Of Cane Planting Fame.

1723 Jena Street, New Orleans, La.

Agricultural and Other Resources of Cuba.

WASHINGTON, May 18.

The salient fact about the Island of Cuba is that fourth-fifths of it is still in a state of nature, and that in regard to a great part of this unclaimed area there is no accurate knowledge whatever. The interior of the island has not been sufficiently surveyed to yield correct information in regard either to the nature of the soil or the contour of the surface. The various commissions which successive captains general have employed to make surveys have pleaded insurmountable obstacles in the way of carrying out successfully the mapping of the ramification of the mountains, the tracing out of their salients and valleys, and the determination of their extent, altitude and geological structure. These observations did not extend east of the seventeenth meridian, leaving an expanse of country extending over four degrees of longitude entirely untouched. Nothing can be more remarkable than the wide divergence between published statements of what might be regarded as the most familiar and easily ascertained facts about Cuba. Lieutenant Rowan, of the Nineteenth United States Infantry, who has written a book on the subject, places the extreme length of the island at 760 miles, its width at the narrowest part thirty to thirty-six miles, and at the widest part 126 miles. But Mr. Robert T. Hill, of the United States Geological Survey, who made a close personal examination of Cuba, says that the longest axis of the island extending from the seventy-fourth to the eighty-fifth meridian is 730 miles in length, that the width of the island varies from ninety miles in the east to less than twenty miles in the longitude of Havana. Cape Mayci, on the east, lies directly south of New York, while Cape San Antonio is situated south of Cincinnati. About an economic fact so important as the coal deposits, Lieutenant Rowan makes the palpable blunder of stating that "bituminous coal of fine quality, yielding little ash, is found in large quantities in many parts of the island from the coast to the mountains. That found near the coast is often in a viscous state."

In point of fact the nearest approach to be had to coal in Cuba is an occasional deposit

of lignite, and the suggestion of the "viscous" coal of Mr. Rowan is probably discoverable in the rich beds of solid asphaltum. The geologists even have not made up their minds about the true history of Cuba. On one side we have the statement, sustained by the authority of Humboldt and Reclus, that it is quite well determined in the minds of geologists that Cuba was at one time united to the mainland of the continent, most probably to Florida, during the geological period known as the post-pliocene. Proof of this is said to be found in the animal remains, such as mastadons and the like, which are found to-day in the Cuban soil, where it would not have been possible for them to pass with the present distribution of land and water. But now comes Mr. Hill, who after careful study of the subject is driven to the conclusion that: "So far as its history is known, the island has never been connected with the American mainland, although such has frequently been asserted to be the case. These assertions have been based upon the erroneous identification of certain vertebrate animal remains. There are no traces in the animal life of Cuba, past or present, which justify this conclusion."

As to the agricultural and commercial possibilities of Cuba there is less room for divergence of opinion. It would be rash to infer that because four-fifths of the island is still uncultivated, there is a possibility of increasing its agricultural wealth fivefold. Allowance must be made for the considerable expanse of mountain and grazing land not suitable for agriculture, and then it must be remembered that of the crop that yields most per acre—tobacco—there is but limited room for profitable expansion. The soils most suitable for the growing of the finest tobacco are already pre-empted, and it would be as vain to look for a repetition further east of the choice spots of the Vuelta Abajo, as it would be to try to duplicate on the Rhine the vineyard of the Castle of Johannisberg. As to sugar the case is different. Between better methods of culture and the planting of new lands, the possibility of increasing the output of Cuban sugar is very large indeed. At present the whole industry is virtually ruined, but in the crop years 1892-93, the total product was 1,054,214 tons. The entire export of last year amounted to only about one-fifth of this normal product. It is the opinion of those best qualified to judge about the resources of Cuba that, supplemented by the cane of Hawaii and Louisiana, the island could easily furnish all the sugar required by the United States. There are planters with large interests in Cuba sanguine enough to maintain that the whole business of sugar refining will eventually be transferred to the island, and that it is within the range of possibility to produce refined sugar there at as low a cost as 1 cent per pound. According to the testimony of Mr. Hill, the Cuban sugar lands are all upland soils, quite different from the lowlands of Louisiana, and excelling in fertility those of all the other West Indies, because the cane has to be planted only once in seven years, instead of every year, as in Antigua. He says that the machinery of the estates up to the outbreak of the present revolu-

tion was the finest and most modern in the world. Whatever may be said of the machinery, the agricultural methods employed in sugar production are certainly not of an advanced character. No effort whatever is made to restore to the soil anything of that which has been taken from it, and the only way adopted to get rid of the superincumbent masses of dead leaves that litter the soil after five or seven years' growth of the sugar cane is to burn them. The cultivator is quite an unknown factor in Cuban agriculture.

The disappearance of coffee from the statistics of Cuban exports has been attributed to exorbitant taxation and the ravages of civil war. This is a mistake. The coffee trees were cut down and replaced by sugar cane simply in consequence of the greater profits to be gained on the latter product. This was before slavery was abolished on the island, and the conditions that have prevailed since have not been favorable to the resumption of that branch of agriculture. But Mr. Hill declares that the mountain sides and hill lands of the east are especially favorable for coffee, and that a quality as fine as that of the famous Blue Mountain coffee of Jamaica can be readily grown. He insists that if the island should ever pass from Spanish hands this will become a large and flourishing industry. There is still a considerable quantity of coffee grown, but almost entirely for local consumption. In the growth and export of tropical fruits there is a most promising future for Cuba. Capt. John S. Hart, of Philadelphia, now confined in the Eastern Penitentiary of that city for his filibustering, began the development of this business. Before the outbreak of the present rebellion the growing of bananas was a large and important industry, chiefly in the vicinity of Nuevitas and Baracoa, at the eastern end of the island. During the season from February to December an average of a ship load a day was exported from Baracoa. The fruit is said to have been the largest and finest received in the United States. It was grown upon mesas and plateaus, and let down over the precipitous cliffs by wire trolleys. Oranges, too, grow without culture in all parts of the island; but no pains have been taken by selection, special culture or otherwise to make them equal to the product of Florida. Pineapples are grown and exported in Western Cuba and the Isle of Pines. In the eastern provinces the cattle industry, owing to the fertile grazing lands existing there, reaches considerable proportions, the product being large and fine animals of Spanish stock. There is also some horse breeding in all parts of the island, the characteristic Cuban horse being a stout pony descended from Andalusian stock, with the build of a cob and a peculiar prancing gait which is said to render it an exceptionally easy riding animal.

As a field for the employment of American capital and enterprise Cuba presents almost boundless opportunities. Literally everything remains to be done for the island, from road making to electric lighting. There are virtually no roads in the interior, and all that Cuba presents to redeem it from barbarism in this respect is an occasional "king's highway" from an inland city to the coast, or from Hav-

ana into the rich western province. The island has about 1000 miles of railway, consisting chiefly of the united system of Havana, extending through the tobacco and sugar districts of the west and centre, and connecting the capital, Matanzas, Pinar del Rio, Batabano, Cienfuegos and Sagua to the system terminating at Santa Clara, 150 miles east of Havana. The entire half the island east of Cienfuegos and Sagua is dependent upon water communication, although several short local lines extend inland from Nuevitas, Remedios and Santiago. The communication by water between Cuba and its neighbors is in a still more primitive stage of development. To reach any of the adjacent islands such as Hayti or Jamaica—each less than a hundred miles distant—it is usually necessary for the Cuban to proceed first to New York and thence to his destination. A perpetual quarantine appears to exist against the island on the part of all its neighbors. The completeness with which Cuba is isolated commercially may be illustrated by the fact that not even a Havana cigar, the most far-reaching of its products, can be found in a single Caribbean city. In subsequent letters additional facts will be given.—*John Ford, in New York Journal of Commerce.*

Trade Openings with Cuba.

WASHINGTON, May 20.—The experience of the past affords but little indication of the possibilities for the expansion of trade between the United States and Cuba. In time of peace, the commercial despotism which was intended to secure for the mother country a monopoly of exports to the colony was by far the most oppressive and irritating phase of Spanish rule. The thoroughly artificial character of the trade of Spain with Cuba was demonstrated when, under the reciprocity agreement with the United States, the export of wheat flour from Spain to its dependency fell from \$2,394,000 in 1891 to zero in 1893, and when, after the abrogation of the agreement of 1894, the export of flour from Spain rose to \$4,000,000. Of Spain's whole export of white cotton goods, Cuba, in ordinary times, has taken 70 per cent. and Porto Rico and the Philippines the rest. Even boots and shoes have figured to the amount of \$4,000,000 to \$5,000,000 a year in the Spanish exports to Cuba. Of the total exports of the mother country, the colony has taken of late years from 17 to 20 per cent., the average annual amount for the five years ending with 1896 being \$30,240,000. That is an amount which the exports of the United States to Cuba have never reached, even in 1893, when under the reciprocity agreement our exports of breadstuffs reached \$3,500,000. In fact, for the five years ending June 30, 1897, the annual average of exports from the United States to Cuba did not exceed \$14,000,000.

The trade of the United States with Cuba reached its maximum in the fiscal year 1893, with a total of \$102,864,204, of which \$23,604,094 was domestic exports and \$78,706,506 imports.

During the first year of the insurrection our trade fell off over thirty million dollars, during the second year the falling off amounts to eighteen million dollars, and during the third

year there is a further decline of twenty-one million dollars, making a total reduction of sixty-nine million dollars in the annual value of our foreign trade. Under any possible settlement of the political and economical status of Cuba, the thirty millions of annual imports from Spain would fall, for the most part, to the United States. But, as was pointed out in a previous letter, the material development of Cuba is still in a rudimentary stage. It is within easy reach of attainment to double the maximum of sugar production attained in 1893 and 1894, and have available for export two millions of tons. With the restoration of peace and the re-establishment of order in the island, it only needs the application of capital and enterprise to make such a result possible within five or six years. The reclamation of virgin soils, some of them grazing land and some forest, would probably be first attempted by companies controlling abundant capital, and would naturally lead to the increased production of sugar. It is a mistake to assume that the beet sugar bounties of continental Europe must render unprofitable the growing of the sugar cane in Cuba. They did contribute to the ruin of most of the non-resident proprietors, out of the savings of whose stewards and superintendents the modern city of Barcelona—the Liverpool of the Mediterranean—is said to have been built. But all the methods of sugar production practised under these auspices were grossly wasteful, and even under the conditions which existed at the outbreak of the rebellion, and under which there were two successful sugar crops of over a million of tons, there was a needless waste. Machinery has been brought up to the latest standard, and the transportation of the cane to the mill has been cheapened by the construction of narrow gauge railroads, but the processes of agriculture are still very primitive. When it is remembered that three-fourths of the cost of sugar production belongs to the agricultural side and only one-fourth to the mechanical side, the extent of the opportunity that exists for improvement will be appreciated.

Roughly speaking, there is an average of two hundred pounds of sugar to every two thousand pounds of cane. Under the most favorable conditions there may be three hundred pounds of sugar to the ton of cane. But if this attainable maximum of 15 per cent. of sugar could be increased, as it readily might, by more careful cutting, planting and cultivating to 20 per cent., there would be an immediate increase of 33 per cent. in the yield, with little if any increase in the cost of raising and harvesting. The advantage which Cuba possesses over the other West Indian islands, in the matter of sugar growing, has already been alluded to in these columns. To this should be added the notable advantage of the possession of deep harbors, admitting of direct shipment without lighterage, and a consequent saving in freight representing an appreciable percentage of profit. That an increased production of sugar would add to the wealth of Cuba and the purchasing capacity of its people is sufficiently plain. Considering, however, that sugar growing is a branch of agri-

culture, best conducted on a large scale by men of capital, employing generally low-priced labor, the regeneration of the island can hardly be looked for from this source. With coffee-growing it is entirely different. Here there is a tempting opportunity for men of small means to settle on the mountain terraces and, under the most genial conditions of climate all the year round, to make a fair livelihood out of their little coffee plantations. To the class of settlers for whom our Northern climate is too severe, the chances which Cuba offers for coffee-growing can hardly fail to be peculiarly attractive, and it is to them we may have to look for the first infusion of the best qualities of American statesmanship among a community somewhat deficient in them.

The mineral resources of Cuba are still imperfectly known. Mr. Robert P. Hill, of the United States Geological Survey, enumerates them as iron ores, asphaltum, manganese, copper and salt. A little gold and silver were mined in past centuries, but never in large quantities. The silver mines of Santa Clara yielded in 1827 140 ounces to the ton, but were soon worked out. There are deposits of asphaltum of unusual richness in several parts of the island, particularly at Villa Clara, where this material has supplied for forty years the basis of the illuminating gas of the city. Mr. Hill states that American investors bought these mines of Villa Clara in the year preceding the revolution, and that their investment up to date, which would otherwise have been profitable, has been absolutely unproductive. Copper was mined at Cobre by the natives of Cuba before Columbus discovered the island, and on the range of mountains, twelve miles from Santiago de Cuba, there are mines which in former years yielded as high as fifty tons per day. According to our consul at Santiago, the books of the consulate show that from 1828 to 1840 an average of from \$2,000,000 to \$3,000,000 worth of copper ore was shipped annually to the United States from these mines. He adds that they continued in successful operation until 1867, when a combination of circumstances having no relation to the exhaustion of the mines closed them up, and their shafts became rapidly filled with water. It is generally believed that large quantities of copper still remain unmined in this locality. Salt of great purity is found in the cays adjoining the north coast. The only important iron mines on the island are those of the Juragua Iron Company, closely associated with the Bethlehem Iron Company of Pennsylvania. Of the whole number of mines thus far discovered and pre-empted between Santiago and Berraco, those of this company alone have yet proved of immediate economic value of importance, and are found to be sufficiently near to available points of shipment. The limits of the ore range, as far as known, are Sagua at the east and Sevilla at the west, two points divided by a longitudinal distance of eighteen miles. The ore is described as mainly, if not wholly, a replacement of coralline limestone, by ferric oxide, and, according to Dr. Kimball, its chemical constitution varies from 61 per cent. to 68.5 per cent. of iron, associated with only from 0.0009 to 0.065 per cent. of phosphorus

and 0.045 to 0.0248 per cent. of sulphur. There are already shipped to the United States from these mines 30,000 to 50,000 tons of ore per month, for consumption at Bethlehem, Steelton and Sparrow's Point.—*John Ford, in New York Journal Commerce.*

Cultivation and Manufacture of Sugar.

A paper read by Mr. T. Low, president of the Mossman River Farmers' Association, before a number of cane growers on the 24th —:

GENTLEMEN—Having been asked to read a paper on sugar cane growing, acceding to such request gives me much pleasure, not, perhaps, that I can tell you anything you don't already know. Still it is well we should interchange ideas, as there is no doubt cane planters are far behind beet root growers, if we compare the improvement made in the cane as a sugar-producing plant with the rapid strides that have been made in improving the beet as a sugar-producing root.

Firstly, let us consider climate.

The sugar cane, being a tropical plant requiring great heat and strong light, can be successfully cultivated only in the tropics, and I would advise to keep well within tropics, and away from localities where frosts prevail. Frost to an extent to partially deaden the leaves does little harm from a manufacturer's point of view, but when the frost is so severe as to freeze the juice and sap in the cane, the sap vessels and juice cells of the cane get burst up, the sap and juice getting mixed, and although the manufacturer will have little trouble in making sugar from frozen canes, so long as the temperature keeps low enough to prevent fermentation, a rise of temperature will, however, cause viscous fermentation to set in, which will speedily invert all the crystallizable sugar in the juice. I have heard it argued that it was at the thaw, after the frost, that the damage was done to the cane. No doubt the rise in temperature, causing the thaw and subsequent fermentation to set in, would make some think this, from the trouble they would have in making sugar after the thaw; but the effects of frosts upon the juice and sap of the cane must be the same as it is upon water, which contracts with cold until the temperature is lowered to 39.1 deg. Fahrenheit. At this temperature it attains its minimum bulk; between this and freezing point, 32 deg. Fah., it expands by cold. At the latter temperature the increase in bulk is equal to 1-12th part of the bulk at 39.1 deg. Fah. I have seen this demonstrated by my old preceptor, Professor Sullman, of Dublin, by placing a carafe filled with water out in the frost, and after being frozen in place of contracting the ice would be projecting over the mouth of the carafe. Hence it is clear that the bursting up of the sap vessels and juice cells of the cane is caused by freezing, not by thawing; but one can understand, when the temperature rises to cause a thaw, the juice doesn't remain long in fit state for sugar manufacture. Frost, however, is not likely to give us much trouble here, and with our generally plentiful rainfall and bright sunshine we have a climate eminently suited for successful cane growing.

Secondly, let us consider our soils.

The soil most suited for cane growing is one that will yield us the greatest amount of sugar per acre, not necessarily the greatest weight of cane. The greatest weight of cane per acre is no doubt the desire of the farmer here in the meantime, but I hope the day is not far distant when we will be paid by the amount of the sugar in the cane. Therefore, the soil I would choose for successful cane growing is what might be termed a rich loam. The term loam is given to land composed of sand and

clay, with a little lime. If there is much sand in its composition it is called a sandy loam; if much clay, a clayey loam, and if much lime, a calcareous loam. In saying a rich loam I mean one bordering on a calcareous loam with at least 5 per cent. of organic matter in its composition. The latter is required for the lime to act upon and make food for the cane roots. The above-described soil is, in my opinion, the best for producing a good weight of cane and a juice rich in saccharine matter. No doubt you will get a heavier weight of cane for a soil very rich in organic matter, but the juice will fall far short in the yield of sugar, besides being far more difficult to manipulate. Heavy clays produce cane yielding a rich juice, but seldom a heavy crop. The rich juice may to a great extent be accounted for by the fact that the cane generally stands erect on such lands.

We have as good cane lands here as I have seen in any country, except Brazil and British Guiana, only the latter country can't be successfully subsoil drained, owing to the flatness of the land under cane culture and its lowness, being about eight feet under the level of the sea at spring tides. Consequently the soil gets robbed of much of its finer particles every wet season through the open drain system that necessarily obtains there. In Brazil the land is undulating, and northwest of Bahia I have ridden over vast stretches of country, the best sugar cane land I have seen. In Trinidad, a great deal of the land much resembles the land here. In the islands of Martinique, St. Vincent, Tobago and Grenada the soils are much the same as that of Trinidad, but of a lighter description. The soil in Barbados is on a limestone bed and is more calcareous. I have only once been in Jamaica, and was not far enough into the country to give any opinion on it; but I am creditably informed that it possesses the richest soil of any of the West Indian Islands. The soil of the Canary Islands is all of volcanic origin. And now to our soils here. We have thoroughly good sugar cane lands, still I think the most of it, if not all, can be improved, and that by draining. The system of drainage I would recommend is what is called thorough drainage, which was invented many years ago by Mr. Smith, of Deanston, Gloucestershire, and much praised by Mr. Wm. Hozler in his essay on drainage, which gained the prize offered by the Highland Agricultural Society of Scotland in 1870, and still holds its place as one of the best works on drainage. Thorough drainage consists of a complete series of drains cut at regular intervals throughout the field, running into a main or leading drain, the size of pipes in which has to be considered according to the number of small pieces it has to relieve, and the incline at which it can be laid. The depth of drains and the distance apart will differ in the different qualities of soil and subsoil. The stiffer the subsoil the closer and deeper will the drains have to be put. On the flatter lands in this country, also in large fields, I would recommend open ditches for leader drains, as in large fields it would take a very large pipe in the leader drain to take away the water from the smaller ones, and with our very heavy rainfall, I would recommend 2½ to 3 inches diameter pipes in the small drains. We have it from the best authorities that there is hardly any description of soil but what is improved by drainage; even what may appear to be a sand bank may have a sour subsoil, also soils with gravelly bottom, as should the rainfall be such as to fill up all the ducts and pores in the soil, and cause a flow of water from the surface or stagnant water to be thereon for a time, the soil gets into a pasty mass, and retains any substances from the subsoil that are injurious to plant growth, besides chilling the ground by excluding the air. The soils are composed of a number of various sized particles, so irregular in shape as to leave between them spaces which uniting with one and another form a series of passages (technically termed ducts)

communicating with the external air, and leading downward from the surface. In addition to these main passages, the particles themselves are perforated with minute openings called pores, which permeate the substance of each particle, but which have their communications with the pores of the neighboring particles interrupted by the intervening ducts, and for the growth of all cultivated crops we must have moisture and oxygen in the soil. The last element being contained in atmospheric air, is most readily supplied from that source. When soil is saturated, both pores and ducts are filled with water. Air therefore, can not gain admission, accordingly no oxygen is forthcoming. Under such circumstances, vegetation is unable to proceed, and, if long continued, vegetable life expires; but when the pores alone are filled with water, air must necessarily pervade the ducts. Moisture and oxygen are thus bountifully supplied, and the conditions most favorable to vegetable life, so far as these elements are concerned, are fairly brought about, and it is averred that soil moderately well pulverized contains ducts amounting to no less than one-fourth of the whole bulk of the soil itself. The warmth of the soil is considerably increased in drained land. Mr. Hozier gives accounts of Dr. Madden's experiments regarding drained and undrained land, and in summer found the drained land $6\frac{1}{4}$ deg. F. higher in temperature than the undrained; and Mr. Parkes proved on a mean of thirty-five observations drained soil at 7 inches below the surface was 10 deg. warmer than the undrained at the same depth, and on drying these soils found that the drained soil was much the moister of the two. To put our lands into proper order we must subsoil our land. This is best done by having a proper subsoil plow, but any plow will serve the purpose by removing the mould-board, and just follow the ordinary plow, breaking up the subsoil, but bringing none of it to the surface. By this and the drains, it forms a naturally artificial substitute for a naturally porous subsoil, causing a free circulation of air through the soil, and the rainfall, by descending to the drains, washes out substances hurtful to the growth of plants, and in time fits the subsoil to be brought to the surface as plant food. The better our land is drained the better it is pulverized, and the finer the particles of earth the more it is rendered capable of absorbing and retaining moisture, and absorbing more of the gases from the air, and, as you might say, acts as a filter in catching the soluble manurial matter on its downward course by the rainfall. Lime, where required—and I think on analysis, the want will be universal in a greater or lesser degree—would assist draining and subsoiling much in bringing our land into a state more fitted for sugar cane culture, as lime, combining with the acids, removes the sourness from the soil and generally disposes the vegetable matter in the soil to change into soluble food for the plants, and also acts upon the mineral properties of the soil so as to fit them for entering into the roots of growing plants. You can fairly well tell if there is sufficient lime in your soil for crop support by the following crude effort: Put a little soil in a glass, and pour upon it either vinegar or weak muriatic acid. If no effervescence, no lime; if much, plenty of lime.

In the Straits Settlements and British Guiana I have always seen the same juice improved by deep drainage and liming. This seems to free it of much of the saline and albuminous matter (which juice from canes grown on rank and undrained land is always impregnated with) and consequently makes it easier to manipulate, besides giving a better yield.

To look at the analysis of an ordinary West Indian cane, it will strike one as not being a plant that should soon exhaust soils. It is composed of: Water, 71.34; sugar, 18.02; cellulose, 9.56; albuminous matter (almost

wholly derived from the air), 0.55; fatty and coloring matter, 0.35, equal to 99.52; salts soluble in water, 0.12; salts insoluble in water, 0.16 (derived from the soil); silica in water, 0.30, equal to 0.49. This tells us that not quite $\frac{1}{2}$ per cent. is taken from the soil of the whole weight of the cane. It will, however, in time exhaust the land if the supply of what it extracts from it is not kept up. We read of the perfection the cane has been brought to in the Sandwich Islands by the liberal application of coral and sea shells. This they apply in its natural state. Shells and coral are composed of lime with a little sand, and by the absorption of moisture from the air, also carbonic acid, become carbonate of lime. Applying them as taken from the sea is considered the best mode of applying lime to sugar lands not too deficient in same. Being less liable to sink deeply in the soil than burned limestone slacked, it consequently lasts longer from yearly giving off a certain amount of carbonate, as it absorbs moisture from the air, and if we are to try and cope with our German friends, we must, along with choosing varieties of cane of the most profitable description, try and put our lands in a condition to yield the maximum quantity of sugar as well as a heavy weight of cane, as it is tons of sugar that will pay, and not tons of cane.

VARIETIES OF CANE.—The cane we require here is the one that will yield the most sugar per acre, not necessarily the greatest weight of cane. The Rappee is a variety with which, I suppose, more than three-fourths of our cultivation here is planted, from the fact that the C. S. R. Co. found it a superior cane. From what I have seen of it here I would term it a bad rooter. Perhaps this is not altogether the fault of the cane, as our soils may not be in a condition to allow of its rooting deeply. You will, however, observe the Singapore and what is called the New Guinea cane growing quite erect side by side with the Rappee, the latter being much lodged. The yellow Otahelie is a good cane. In British Guiana no other variety is grown. Many varieties have been tried, but all have had to give way to this favorite. This the Lahaina and the Bourbon are supposed to be one and the same cane. Mr. Wray, who wrote a work on the cane and sugar manufacture, spent much of his early life in the West Indies. In 1889 I had the pleasure of meeting him in the Straits. He has been in most of the sugar countries, and is of opinion that these named three varieties are one and the same cane, somewhat altered by change of soil and climate. A cane I think would do well here is the Salangore. It is a cane of very erect habit, ratoons well, and yields a juice rich in saccharine matter, and easy of clarification. It has somewhat more fibre than the Otahelie. I saw a great deal of this cane grown in the Straits, and it grows the greatest weight per foot of any cane I have seen, sometimes almost two pounds weight per foot of cane. This cane ranks second to the Giant Claret cane for freeness of growth, and although not so stout as the Giant cane, it was heavier per foot, and, of course, contained much more sugar. Through experiments we tried with a great number of varieties in the Straits, the Salangore proved itself the best cane, standing more erect on the same soil than any other variety. The next in order was the Otahelie, Lahaina, or Bourbon, as it is variously named; third was a Borneo cane named Camar Morte; and the fourth was the Horne cane. The latter much resembles the cane called the New Guinea cane here, I saw a great deal of Rappee or Rose Bamboo grown in Mackay district, where it seems much in favor. However, I saw none of it long enough to cause it to lodge, although some of it was longer than anything I have seen growing erect here, and there is no doubt it was found a good sugar producing cane by the C. S. R. Company before they recommended it being planted, as they take every care and have every means of finding

out the varieties that pay the mill best. Still I am confident a cane of more erect habit will pay us better here. The red cane of Bengal is a good strong cane. This the Malays name Tibboo Mirah. A good deal of it is grown in the Straits. When visiting the Acclimatization Gardens in Brisbane I saw what I took to be the ratoon of a graft, and reckoned some thirty canes of apparently distinct different varieties at the one stool. We must try and raise some new varieties. I have a few grafts planted of the Rappee and the stripped Singapore, also the Rappee and the New Guinea cane, and I hope to show you what varieties emanate from same. If we would take an example from the Germans in the care they take in selecting the roots of beet they are to keep for seed, we would do well. They have by this careful selection improved the beet as a sugar-producing root so in the space of sixteen years that it is yielding about double the sugar; so that not only must we select the varieties of cane, but the best of them for seed, and by analysis I think you will find it will be one of more erect habit than the Rappee. The ones I would recommend are the Green Salangore and the Otahelie.

CULTIVATION OF THE PLANT.—The proper season to plant here is as soon as you can get your land ready after the wet season. Two reasons I would give for this. One is, that by having your canes planted early they will be grown enough to be able to take full advantage of the rain and warm weather when they come, and although the canes may not grow much through the dry cold weather, still they stool and cover the ground to an extent to prevent in a measure the growth of grass when growing weather arrives. Second reason is, you will have nearly all the work done to these plants before crushing season, and after cutting your cane will be able to attend to your ratoons. In this way you will be able to cultivate more land with fewer hands.

Every place has its own mode of planting. In some countries everything has to be done with the hoe, shovel and fork, but I will only speak of it as it obtains here. At Mackay, where the most of the work is done by horse power, you will see farms as well worked as anywhere. Many of them go in for riding. This is done by gathering a bed to plant two or three rows upon, leaving a ditch or wide furrow between each bed, planting the cane on the high ground. This is done no doubt to assist in draining the land and to get a greater depth of soil cured to grow their cane on. This will help them to get heavier crops in the meantime, but in time it will impoverish the soil, as a flow of surface drainage carries with it much of the finer particles of the soil, and those fine particles carry with them much of the soluble matter of manures applied or absorbed from the air. If they adopted thorough drainage and broke up their subsoil, these fine particles would descend downward and be retained by the soil.

In planting with the plow the furrows should be opened one foot deep, deeper if your soil is free from acidity, as in putting the cane plant deep and afterward gradually breaking the mould up to it, it gets a chance of rooting more strongly than if planted shallow, besides supplying the buds or eyes of the young canes mould to grow and to nourish them, thereby giving you a strong stool of canes.

HOLING AS DONE IN SCRUB LAND HERE.—I think in general the holes are made too small. Twelve to sixteen inches square dug deep and broken up in the bottom, and a little earth from the surface placed in the bottom of the hole, would, in my opinion, be an improvement, and give the cane an opportunity of rooting better. In Barbados they make the holes about eighteen to twenty-four inches square, and in the bottom of each put a basket of farmyard manure or fish compost.

The land throughout the growth of the cane should be kept quite clean and free from

weeds, and the dead leaves removed from the cane from time to time (and placed under any inclined to lodge) to allow the sun and air to get freely at the cane, and about six weeks before cutting, the cane should be trashed as high up the cane as you expect will be fit for sugar manufacture.

CUTTING CANE.—The Dutchman's saying comes about correct here, that one inch at the bottom is worth three at the top; consequently the cane should be cut evenly with the ground, an inch under if you can get it done, not alone to get the most of the sweetest portion of the cane you can, but to insure strong ratoons, as if the cane is cut high the uppermost buds of the cane burst forth, growing first, and soon assume the appearance of our blady grass, and so choking the lower buds that they are reduced to the same weak growth, producing a great number of small stunted canes.

RATOONING.—As it is of great importance to return to the soil as much of the cane as possible that is unfit for sugar manufacture, the leaves and uppermost joints of the cane should be returned to the ground as soon as possible after cutting. Before we could do this here it would have to be cut up, but I think this could be done by cutting wheels (something like these circular coulters) fixed in a frame, well sharpened, and weighted to cut the trash and tops. Then your first operation, ploughing away from the cane row, would cover it. Some time after, it can be leveled with a light scuffler, and in time can be heaped up to the cane. This is perhaps rather a rough mode of covering it, as to get the most good of the trash, it should be covered deeply to open up the ground and help aeration, but, although some of it will be exposed to the air, the greater portion of it will be covered. Burning the trash is a great mistake, unless done to destroy some pest. Unless for this, the only other occasion it might be pardonable is when you are about to replant; but if labor is plentiful, and no fear of pests, it would pay not to do so then. In 1878, if my memory serves me aright, the borer caused considerable anxiety in British Guiana. The species that gave trouble there was what is known as the *Proceras sacchariphagus*. United and prompt measures were taken by all the plantations for its destruction. All trash, rotten cane and cane debris of every description was burnt. The pest I have heard most of here is the grub, but as the beetle producing them lays its eggs in the ground, burning the leaves would not get at them. The *proceras* lays its eggs on the leaf close to the joint of the cane. Smut and rust are put down to improper cultivation and treatment of the soil by such authorities as Drs. Ure and Watt, and I think they would put what is known as gumming here to the same cause. I had some experience with a disease very similar to gumming in the Straits. The Chinese termed it sap disease. The cane would seem quite healthy up to three or four months' growth, when for no apparent reason it would commence to droop and die off, the centre top leaves dying first. This, of course, would come from the cane being an endogenous plant, and from more of the poisoned sap getting at the top centre leaves than the leaves on any other portion of the cane, from the fact that the sap has to ascend there to further grow the cane. By taking hold of one of the canes apparently not much affected it would break off quite easy at the uppermost inner joint, and on examining it you would find it quite a red color; the dead ones you found nearly black at the top inner joint.

Shortly after taking charge of Sir John Ramsden's estate, the chairman of directors, through the secretary, sent me a list of fields on which not to plant cane, with a history of them, as to how often they had been planted and the canes died off. He also sent me analysis of the soils of each field. The soils were analyzed by the late Professor Voekler, who pronounced them to be all highly surcharged

with iron and sulphuric acid, which combining together formed green vitriol, which he described as the most perfect plant poison, and advised deep draining and liming. I wrote the directors that I meant to experiment on one of the fields, and choose the one with the worst character. They in time wrote, hoping I would be successful, and asked to be posted with the appearance of the cane at the different stages of the growth. I got the manager to carry out the experiment. Originally there was a drain in the field 120 feet apart and one foot deep. I had drains cut 30 feet apart and three feet six inches deep, with a large trucker across field in centre, and a large trucker from it to main draining trench leading to water gate; I also cut drills or small drains across the beds 18 inches by 18 inches on each alternate opening. This was in the dry season. I left it thus until the fissures or rents in the land were nearly as deep as the drains, and as we had a great command of fresh water, I was able to almost swamp the field by closing up all drains at the side line or main draining trench. The water in the course of a couple of days got covered with a scum of glary stuff. This we examined daily, and this stuff increased in thickness for three days on the first application of water. This water was run off, and the land again allowed to open up with the dry weather, when it was again flooded with water. This was done four times, and the last time very little of this protoxide of iron came on the surface of the water. I then had the land turned over eighteen inches deep and gave it a liberal application of lime, but before applying the lime formed the rows for the cane plants, and with the first rains the cane plants were put in and came away nicely. Before being crushed, I had to leave in bad health, but it yielded over forty piculs per acre (a picul is 333½ pounds; 16.8 piculs to the ton), and I had accounts of this field three years after this, and then there had been no recurrence of the disease. The lands I saw on the Richmond and Tweed rivers can be cured in the same way, but the question comes, will it pay to do? How the application of lime cures the soils surcharged with green vitriol is from the lime having a greater affinity for sulphuric acid than iron has, combining with the sulphuric acid and forming with it gypsum, displacing the iron in the form of an oxide. The flooding I did to try and get rid of some of the poison.

It would take a very lengthy paper to enter fully into the minutiae of manufacture, so I will content myself with tolerably few points regarding the factory and manufacture. The first point is to see that the land around the factory, more especially near to the factory site, is well and efficiently drained, and that the floor of the factory be laid so that it will be easily kept clean and dry; that no refuse of any kind is allowed to collect in or about the factory. If you refer to Pasteur's work on the germ theory, you will at once see the force of this, as germs are easily propagated, but not so easily destroyed. Take his experiment with turnip infusion. This he placed in glass bulbs, excluding all air, closing the ends of bulbs by melting the glass, and boiled them. Then he found that anything under three hours' boiling had not the effect of sterilizing the germs in the infusion; over three hours' boiling had the effect of completely sterilizing them. So you will see germs are more easily grown than got rid of.

Crushing up to 1874 in British Guiana was what is known as single crushing, and we have no account of a double crushing previous to this date. Duchassaing and the late Hon. Wm. Russell, of British Guiana, are the two first men who seemed to grasp the fact of the enormous amount of sugar being sent to the furnaces in the megass. Mr. Russell, after experimenting at the estate he resided on, arranged to have a public trial at an estate near to Georgetown, and all members of our agricultural society were invited, and I had

the honor to be there. The experiment was undertaken at plantation Ruimveldt, on October 21, 1874. Mr. Russell had that day, in addition to his own chemists, Mr. Fahlberg, now professor of chemistry of a college in Toronto. Mr. Russell and his engineer, Mr. Walter Resien, had previously patented maceration, but even after the great advantage to be gained in macerating cane and second crushing was pointed out, proprietors were some years before they to any extent adopted same and double crushing. A trial upon very rank canes and the difficulty in making sugar from the juice operated against its adoption. Still in a few years the necessity of adopting same was patent to all, and now you don't find one factory without it. Maceration and double crushing gave us all great trouble in sugar making, at least so far as to hinder in making sugar with that beautiful canary bloom Demerara sugars are so famed for. However, after we got juice heaters powerful enough to boil the juice from the mill, we again got clarification to make sugar up to the old standard, which I don't think would ever have been attained by the old system of clarification, there being so much more matter foreign to successful sugar making in juices from maceration and double crushing than from single. This you will understand from the fact that most of the albumen and saline matter is contained in the sap vessels and rind of the cane, and are far harder to squeeze out than the juice in the cells; consequently you are likely to get less of these impurities with an expression of 60 to 67 per cent. from the cane than from expressing 80 to 85 per cent. Many claim that diffusion is preferable to maceration and double crushing, as, although they get the soluble salts in the juice, it is not surcharged with albumen. Two large factories in British Guiana, which have complete plants for maceration and double crushing and diffusion, have for years worked the diffusion process, showing a profit by the extra amount of sugar thereby gained, although the evaporation is more expensive. The Bessemer press, invented by Sir Henry Bessemer in 1849, was supposed to extract all the juice without any of the sap. It was worked by means of a hydraulic ram, with strong suction pump underneath the box to suck out the juice. His idea did not get much attention at the time, but I understand some engineers in Glasgow are trying to perfect a process of much the same description and I hope they may be successful, as in the juice cells there is very little else but pure sugar and water, and it would be a great matter to get this from the cane without mixing it up with the impurities contained therein. With maceration and double crushing, or as many crushings as you like, there will always be about 45 per cent. of moisture lost in the megass. The less per cent. of sugar in this moisture left in the megass, the less sugar you are sending away as fuel, and the point to saturate to is so long as you are getting sugar to pay for the fuel, etc., and leave a profit. The macerating chamber of the mill here is the same as invented by Messrs. Russell & Resien. The circular drum in use on the Colonial Company's estate here is, I think, more effective.

TEMPERING THE CANE JUICE.—It is in the clarifier that the sugar is made, and the tempering of the juice requires constant and intelligent attention. Litmus papers and liquid are made use of to show when the juice is neutral, but a correct eye is also very necessary. If not properly tempered in the first instance, loss of sugar results throughout the whole operation of manufacture. Adding lime in a pan may assist to get grain, but think of the inversion that has taken place previous to the juice getting there, and little will be the sugar you will get from your second syrups.

To arrive at the amount of sugar in the cane juice, you will get numerous authorities who

give you the amount of sugar contained in the juice by its density, or specific gravity, and if we are to take the amount of sugar by some of the best authorities, you will find that Mr. McCulloch's (questioned) statement to the Prosopine farmers is not far out, which was their making a ton of sugar with five tons of cane. Say they get juice from their cane showing a density of 12 deg. Baumé. This, according to Tucker, contains 21.7 per cent. of sugar; Dr. Dutrone 22.08 per cent. Drs. Ure and Watt are somewhat under these authorities. Still with juice of this density the ton of sugar should be made from less than six tons of cane. Take Tucker's figures (who, so far as I know, is the best authority on sugar analysis), 21.7 per cent., and putting the expression of juice from the cane at 80 per cent., a ton of cane will yield you 1792 pounds of juice; therefore, 1792 by 21.7 equals 388.86 pounds of sugar to the ton of cane. In this way you should take 5.76 tons of cane to a ton of sugar.

Density is rather a rough test, however, and the polariscope is now in general use in all factories of any importance. The shadow instrument is my favorite. It is easier to read correctly with it; maybe from being most used to it that I think so. By the use of the polariscope and the test for glucose and ash, you can tell the amount of sugar obtainable from the juice. Every factory should be under chemical control, so as to find out where the losses are occurring, if any are. I have had thirty years' experience, and have seen much good and more bad manufacture in both sugar and rum.

The mills of the Colonial Company (at least the two I have been in) here are well run, but as their working and results are kept private, I can't say how their operations compare with others I have seen and worked. One thing, they are not afraid to use both water and steam in maceration, and are, I should think, extracting as much of the sweets from the cane as any. This, as I have already said, is right, so long as thereby you are getting sugar to pay for fuel and other expenses incidental to same. From practice and observation, I think the two weak points in their factories are their furnaces for burning green megass, and striking their masse cuite so low. There are furnaces with heated air (only) entering under the grate bars, cold air being completely excluded, that are producing steam from the megass alone to run the factory, and this with maceration and double crushing. The mixers under the pans are not strong enough to handle a highly struck sugar. No doubt the sugar is thus struck here from a labor-saving point of view, but when we consider that the coefficient of glucose is 2 (most chemists now agree to take it at what it reads), and that of ash 5, both of which exist in the masse cuite, it will be patent to you that the more of the crystallized matter extracted in the first instance the better. The small circular pans as used by the Germans and in use in British Guiana are the best I have seen. They are capable of containing about 3 cwt. From the small size of them, the sugar cools quickly, and when the sugar is forced out of them by hydraulic pressure, it presents, as it falls into the pug mill, exactly the appearance a barrel of Portland cement presents after having been for some time under water. But, gentlemen, I am allowing this paper to run to too great a length, and must close, hoping we will, by combined action, be able to improve the cane as the Germans have the beets, and make our position as sugar farmers a strong one.—*Queensland Sugar Journal*.

Darker Europe.

Although serfdom is generally believed to have been abolished in Austro-Hungary in 1848 and in Russia in 1863, yet it still exists in certain remote parts of Hungary, where the aristocratic landowners have retained to such

a degree possession of their old-time feudal rights over the peasantry on their land that many of them are accustomed to use their peasants as beasts of burden, harnessing four men to a plow, instead of a pair of horses or a yoke of oxen, says a correspondent. Throughout the northeast of Hungary the noble landowners are in the habit of demanding fifty days' work in the year from each laborer or peasant on the estate, without any remuneration whatsoever. When the lord of the soil has any work to be done, he sends a drummer through the village, and every male inhabitant is compelled by law to obey the summons. The lord then selects as many men as he requires and sends the rest home. The spread of education and instruction among the masses has ended by awakening them to a sense of the indignity and injustice of this form of servitude, and accordingly in the districts of Nyiregihanza they have organized a movement to abolish these ancient usages and rights of the landowners, and have, moreover, refused obedience to the latter. The landowners have, in consequence, appealed to the government, which has responded to the application by sending troops to the disaffected districts. The peasant movement has been suppressed with no little bloodshed, and the leaders have been either lodged in prison or expelled from the kingdom, while those who remain are forced to comply with every demand made upon their labor by the landowners. It is incredible that such a state of affairs as this should exist in a civilized and Christian country, at the latter end of the nineteenth century, and that a government which professes to be so liberal as that of Hungary should not only tolerate, but even enforce, any such treatment of the laboring classes.—*Picayune*.

Sugar Boiling Experiments.

Most sugar makers are cognizant of the two methods of sugar boiling known respectively as the "intermittent" and "continuous" feed process, and it was with a view to demonstrate the superiority of one or the other that the following experiments were made under the chemical direction of Mr. Joseph Fletcher, the well-known chemist and analyst. Although these "experiments" do not indicate anything very startling, yet sufficient is shown to warrant a continuance of the series extending over a whole season, thereby embracing the variety of juices usually met with, when no doubt a definite answer could be given to the problem. Personally, and apart from the slight advantage shown in the following data, I am inclined to think that the continuous feed process is the best, because it appears to be the system most in touch with the theories of crystallography, and it is to be hoped others will follow up these investigations and record the results in your columns.

The experiments in question were conducted thus: Three "intermittent process" pans were boiled alternately with three "continuous" process pans, from liquor whose composition was as near as possible the same. It will be observed that the "continuous feed" process gave one-half pound more dry sugar per gallon of masse cuite, notwithstanding its

masse cuite contained nearly 2 per cent. more "water" than the "intermittent" process.

CONTINUOUS FEED PROCESS.

Number of tests.....	3
Total gallons of liquid used.....	25,281
Total gallons of masse cuite therefrom.....	12,037
Pounds of dry sugar obtained per gallon of masse cuite.....	8.05

ANALYSIS.

Per cent. water in masse cuite.....	11.5
Per cent. sucrose in masse cuite.....	80.61
Purity of masse cuite.....	91.00
Per cent. sucrose in first molasses.....	69.10

INTERMITTENT FEED PROCESS.

Number of tests.....	3
Total gallons of liquid used.....	25,012
Total gallons of masse cuite therefrom.....	11,852
Pounds of dry sugar obtained per gallon of masse cuite.....	7.51

ANALYSIS.

Per cent. water in masse cuite.....	9.7
Per cent. sucrose in masse cuite.....	80.5
Purity of masse cuite.....	89.02
Per cent. sucrose in first molasses.....	69.85

These data would be more serviceable if I had obtained the "purity" of the liquor and first molasses, and in future experiments the omission will be rectified.—*C. P. Munro, in Queensland Sugar Journal*.

Personal.

Mr. Robert Bodin was the sugar boiler on the Anna place of Mr. Thomas Shaffer during the recent crop. Mr. Bodin ranks high as a sugar boiler and usually makes a big crop.

That well-known sugar boiler, Mr. Julius Schultz, was in the city on Wednesday after spending some time in the country. Mr. Schultz has not been well, but now wears his usual healthy glow again.

Mr. Benjamin H. Pring, proprietor of the splendid Onelda plantation on the upper coast, was in the city on a visit a few days ago, and registered at the St. Charles.

Mr. John Vegas, of St. James parish, of which locality he is one of the most highly esteemed and popular residents, was registered at the Grunewald during the past week. He was accompanied by Mrs. Vegas.

Mr. C. A. Kelly, of Glen plantation, was a guest of the Commercial Hotel a few days ago.

Col. R. H. Cobb, vice president and general manager of the Anniston Lime and Stone Company, of Anniston, Ala., was in town during the past week renewing the pleasant acquaintance he possesses with so many of our sugar planters.

Professor Lezin A. Becnel, superintendent of the Ashton plantation, in St. Charles parish, was in the city on a visit a few days ago.

Mr. Ed. Elliott was the head engineer on the Linwood plantation, of Hon. Walter A. O'Neill, last season. Mr. Elliott won deserved praise for his excellent work. Under his supervision everything about the mechanical department of Linwood ran as smooth as silk.

Hon. J. J. Shaffer, a prominent planter of Terrebonne parish, was in the city on a visit a few days ago and registered at the St. Charles Hotel.

JUNE 4.

WEEKLY MARKET REPORT.

1898.

SUGAR.		May 28.	May 30.	May 31.	June 1.	June 2.	June 3.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.	
Open Kettle.										
Choice	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 3	Steady.	
Strict Prime	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 7/8 @ 2 1/2		
Prime	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 3/4 @ 2 1/4		
Fully Fair	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/4		
Good Fair	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/4		
Fair	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/4		
Good Common	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/4		
Common	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/4	Quiet.	
Inferior	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	2 1/2 @ 2 1/4		
Centrifugal.										
Plant'n Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		Steady.
Off Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Choice White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 1/2 @ 3 1/2		
Off White	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —		
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Choice Yellow	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 1/2 @ 3 1/2		
Prime Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	8 1/2 @ 3 1/2		
Good Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	8 1/2 @ 3 1/2	Steady.	
Seconds	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 1/2 @ 8 1/2	2 @ 8 1/2		
MOLASSES.										
Open Kettle.										
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	Steady.	
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	Steady.	
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Centrifugal.										
Fancy	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ —	Steady.	
Choice	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ —		
Strict Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ —		
Good Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ —		
Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ —		
Good Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ —		
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ —		
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ —	Steady.	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ —		
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ —		
SYRUP.										

OTHER MARKETS.

NEW YORK:									
SUGAR.									
Fair Refining, 80	— ● —		— ● —	— ● —	— ● —	— ● —	— ● —	Quiet.	
Centrifugals, 96	— ● —		— ● —	— ● —	— ● —	— ● —	— ● —		
Granulated	5.08 } —		5.08 } —	5.08 } —	5.08 } —	5.08 } —	4.22 } —		
Standard A.	4.96 } —		4.96 } —	4.96 } —	4.96 } —	4.96 } —	4.10 } —		
Cuba, 96, Ctf.	— ● —		— ● —	— ● —	— ● —	— ● —	— ● —		
MOLASSES.									
N. O. Choice	— ● —		— ● —	— ● —	— ● —	— ● —	— ● —	Firm.	
N. O. Fair	— ● —		— ● —	— ● —	— ● —	— ● —	— ● —		
Cuba, 50	— ● —		— ● —	— ● —	— ● —	— ● —	— ● —		
LONDON:									
Java, No. 15 D. S.	Holiday.		12s. 6d.	12s. 6d.	12s. 6d.	12s. 6d.	10s. 9l.		
A. & G. Beet			9s. 8 1/2 d.	9s. 9l.	9s. 9l.	9s. 9 1/2 d.	8s. 8 1/2 d.		

NEW ORLEANS REFINED

Cut Loaf	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 4¾	Firm.
Powdered.....	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 5½	— @ 4¾	
Standard Granula'd	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 4¾	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	@ 5.82	@ 5.82	@ 5.82	@ 5.82	@ 5.82	@ 5.82	@ 4¾	
Crystal Extra C.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	May 25	Tons	840,573
At four ports of Great Britain to.....	May 21	"	80,500
At Havana and Matanzas to.....	May 25	"	87,500

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JUNE 3, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	158	13,552	8,991
Sold	221	18,781	2,994

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO JUNE 3, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received	23,370	1,464,708	193,488
Sold	23,370	1,450,732	193,489
Received same time last year	36,564	1,365,082	221,609

JUNE 4.

WEEKLY MARKET REPORT.

1898.

RICE.	May 28.	May 30.	May 31.	June 1.	June 2.	June 3.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	8 00 @ 35 85	8 00 @ 35 85	8 00 @ 35 85	8 00 @ 35 85	— @ —	— @ —	— @ —	Dull.
CLEAN, Fancy.....	6 $\frac{1}{2}$ @ 6 $\frac{1}{2}$	6 $\frac{1}{2}$ @ 6 $\frac{1}{2}$	6 $\frac{1}{2}$ @ 6 $\frac{1}{2}$	6 $\frac{1}{2}$ @ 6 $\frac{1}{2}$	6 $\frac{1}{2}$ @ 6 $\frac{1}{2}$	6 $\frac{1}{2}$ @ 6 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 6	
Choice.....	5 $\frac{1}{2}$ @ 6	5 $\frac{1}{2}$ @ 6	5 $\frac{1}{2}$ @ 6	5 $\frac{1}{2}$ @ 6	5 $\frac{1}{2}$ @ 6	5 $\frac{1}{2}$ @ 6	5 $\frac{1}{2}$ @ 6	
Prime.....	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 5	
Good.....	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	
Fair.....	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	5 $\frac{1}{2}$ @ 5 $\frac{1}{2}$	4 @ 4 $\frac{1}{2}$	Dull.
Ordinary.....	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	3 $\frac{1}{2}$ @ 3 $\frac{1}{2}$	
Common.....	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	4 $\frac{1}{2}$ @ 4 $\frac{1}{2}$	— @ —	
Inferior.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Nominal.	
No. 2.....	2 @ 2 $\frac{1}{2}$	2 @ 2 $\frac{1}{2}$	2 @ 2 $\frac{1}{2}$	2 @ 2 $\frac{1}{2}$	2 @ 2 $\frac{1}{2}$	2 @ 2 $\frac{1}{2}$	2 @ 2 $\frac{1}{2}$	
BRAN, $\frac{1}{2}$ ton.....	12 50 @ 13 00	12 50 @ 13 00	12 50 @ 13 00	12 50 @ 13 00	12 50 @ 13 00	12 50 @ 13 00	12 50 @ 13 00	
POLISH, $\frac{1}{2}$ ton.....	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	17 00 @ 18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JUNE 3, 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received.....	654	—
Sold.....	20	75

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO JUNE
3, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year.....	467,601	8,081
Last year.....	875,880	9,490

Sugar.

At the end of the week the local sugar market was quiet, with only a moderate business reported.

Molasses.

No open kettle goods in first hands. Centrifugals steady.

Rice.

Offerings of rough and clean are extremely light and but little movement is reported. The market continues to rule strong.

Talmage on the Rice Market.

In spite of the contrary conditions, such as pluvian experiences and backward spring in some parts "down East" and in the Middle States, former high record continues to be maintained. Although the volume of business is exceptionally large it is devoid of any speculative features, individual purchases being limited to well ascertained requirements. The arrivals of the last week were of land-office proportions, but were all distributed promptly from steamer side. Spot stocks are light, and best selections only obtainable by securement in advance of arrival. Advices from the South note steady demand, mainly imported sorts. Cables and correspondence from abroad note rising price still the rule, and on some styles the highest figures ever reached have been made. The forward supply is still further reduced because of the diversion of crops in the far East from regular channels, to meet the deficiency in Japan. The imports of that country from Burmah, Corea, Cochinchina, Saigon and Siam thus far foot up 9,600,000 bags. The amount is formidable, being twenty times an average crop of the United States. Under such circumstances even the more conservative have given up looking for reaction the present year, and there is a growing impression that prices on ordinary sorts may yet be advanced a radical item.

Talmage, New Orleans, telegraphs Louisiana

crop movement to date: Receipts, rough, inclusive of amount carried over, 537,100 sacks; last year, 570,000 sacks. Sales, cleaned (estimated), 121,750 barrels; last year, 109,150 barrels. Quiet; demand limited and local; prices firm.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 59,470 barrels; sales, 58,930 barrels. Nothing offering except stock previously noted and now selling from second hands. Principal business doing is in foreign sorts.

St. Mary.

Some portions of the parish were treated to a good rain on Monday. It is a pity that the downpour had not been more general. The crops are suffering for water; many people have none to drink, and are compelled to beg from their friends. Water for cooking and washing purposes is hauled from the bayou. Suffering for water is simply growing intense, and if it does not rain soon the losses will run up into the millions, besides the other inconveniences.

The suffering caused by an absence of water is growing serious, to say the least. The crops can not stand it much longer and thoroughly mature when the proper time comes.

Mr. Birg has been flooding his crops also on account of the dry weather, which is the most extensive we ever had at this season of the year.

Hon. Walter O'Niell has lost several of the finest mules on his Linwood plantation during the last few days, supposed to have been the result of an overdose of molasses, which he had run out through ditches into his pasture from the sugar house, which was then in operation drying out the thirds of last season.

Mr. J. C. Mahon has returned from a visit to his old home in the West Indies, which he has not seen since his immigration to this country about thirty years ago. The island suns of the Atlantic gave him a healthful color, and seemed to improve his physical condition in other respects.

Messrs. Wm. J. Young and U. P. Himel, both of St. Mary parish, have purchased the Anchorage plantation in St. Landry, of Mr. N. J. Foote, real estate and land agent of this

place, acting for Messrs. Paine and others, of New Orleans, its owners. The Anchorage, together with a small adjacent tract, embraces 1378 acres of the finest sugar-producing soil in that broad and rich parish. The price paid was \$22,500. It is likely that both the new owners will take a hand in its management next season; though for the remaining portion of the current year, we do not know the arrangement between them. The *News* wishes them much success, which they abundantly deserve, and seem to be enjoying, having each begun at the ground-step only a few years ago.

Mr. Thomas J. Shaffer will begin the erection of a fine and costly residence on his Anna plantation soon. It will be built by Mr. H. B. Fourmy.—*St. Mary News*, May 26.

Trade Notes.

Haubtman & Loeb.—These gentlemen tell us that the Myrtle Grove sugar house of the Messrs. Wilbert, near Plaquemine, is being converted by them into one of the model establishments of the State. They are putting in new double effects, vacuum pans, pumps, Corliss engines and other paraphernalia, and in effectiveness and completeness Myrtle Grove will be hard to beat.

Mr. W. J. Thompson, of Calumet plantation, was a guest of the St. Charles on Wednesday.

Mr. A. O. Levert, of St. Martinsville, La., was registered at the Grunewald Friday night.

Capt. John N. Pharr, of Berwick, and Mr. J. A. Pharr were in the city on a visit a few days ago. They registered at the St. Charles.

Mr. William Harris, an experienced and highly esteemed planter of Rapides parish was in the city on a visit last Tuesday.

Mr. and Mrs. E. H. Barton, of Ascension parish, were in the city on a visit a few days ago and registered during their stay at the Cosmopolitan Hotel.

Mr. William Polk, a prominent planter and esteemed citizen of Alexandria, was a guest of the Grunewald on Thursday.

Mr. Adam Short, of the Belle View plantation, near Franklin, registered at the Royal during the week.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—SITUATION BY A GRADUATE OF polytechnic academy; fourteen years' experience in beet sugar factories; well versed in practical sugar manufacturing; chemical control; arrangement of sugar house; beet culture, etc.; best of testimonials and references given. Address C. D., 147 Green street, Brooklyn, N. Y. 6-2-98

WANTED—A GOOD MECHANIC TO REPRESENT me in each sugar parish in the State for the sale and construction of my new automatic cane transfer. Address E. W. WILEY, Jr., Lecompte, La. 6-2-98

WANTED—A POSITION BY AN EXPERIENCED sugar maker for the coming crop; many years' experience; best of references given. Address ALBERT PEYRONNET, 1933 Dumaine street, New Orleans, La. 6-2-98

WANTED—A POSITION FOR COMING SUGAR crop as cane weigher, juice keeper or water tender, by a married man; best of references. Address GEO. TASSIN, New Orleans, La. 5-28-98

WANTED—A POSITION BY A COMPETENT vacuum-pan sugar maker to take off the crop during the next season; I can do my own clarifying; strictly temperate and reliable; references furnished on application; would accept an assistant in a large crop. Address SUGAR MAKER, Lock Box 20, Eagle Lake, Texas. 6-2-98

WANTED—BY A MAN OF MANY YEARS' experience, a situation as clarifier for vacuum pan, or sugar boiler and clarifier on open kettles, or open steam train; the best of references given. Apply to E. MEYNARD, Charenton P. O., St. Mary parish, La. 6-1-98

WANTED—A POSITION BY A YOUNG MAN with experience as clerk in a country or plantation store; has knowledge of book-keeping; good references. Address C. F. A., this office. 5-31-98

WANTED—POSITION ON A SUGAR PLANTATION as manager or assistant for winter; also next year if everything proves satisfactory; can come October 1 and bring 50 or 100 hands for grinding if wanted; have had much experience in planting and managing labor. Address K., Greensburg, St. Helena parish, La. 5-26-98

WANTED—A POSITION BY AN EXPERIENCED engineer and machinist, thoroughly familiar with all classes of sugar house and refinery machinery, and can furnish first-class references from employers for the past fifteen years. Address J. E., 5351 Magazine street, New Orleans. 5-24-98

WANTED—A SUGAR OR MOLASSES BARREL maker would like a position on a plantation, or in the city; can furnish references. Address LOUIS ROGERS, 2901 Bienville street, city. 5-21-98

WANTED—POSITION BY A FIRST-CLASS sugar chemist of long experience, competent to take charge of any department of sugar manufacture; excellent recommendations. Address CLEMENS DOMES, 147 Green street, Brooklyn, N. Y. 5-19-98

WANTED—A FIRST-CLASS ASSISTANT vacuum pan sugar maker; give references. Address, Lock Box 193, Patterson, La. 5-19-98

WANTED—A TECHNICAL, EDUCATED MAN, with three years' experience in Europe, and competent to conduct a beet sugar factory, wants any position where he can make himself useful. Address HOBROC, 46 Cabot street, Boston, Mass. 5-20-98

WANTED—A POSITION AS TRAMWAY ENGINEER. Address A. E. HUTCHINSON, 740 Nashville avenue, New Orleans. 5-20-98

WANTED—A POSITION AS SUGAR HOUSE engineer, for construction, repairs and general work. Satisfactory references as to ability and character. Address A. S. ARMSTRONG, 1026 Jena street, New Orleans. 5-10-98

WANTED—POSITION AS WEIGHER OR SIMILAR for coming season, by experienced man of 35; first-class recommendation; well posted on general office work; also open for any kind of employment at once. Address E., care L. Schuster, merchant, Hohen Solms P. O., Ascension parish, La. 5-3-98

WANTED—A POSITION BY A FIRST-CLASS sugar-house and refinery engineer to do repairs and take off crop; has fifteen years' experience. Address D. W. B., No. 720 Valmont street, New Orleans, La. 5-3-98

WANTED—BY A FIRST-CLASS MACHINIST and engineer, fifteen years' experience in refineries and sugar houses; can give first-class reference. Address HENRY WESTON, 740 Poydras street, New Orleans, La. 4-26-98

WANTED—BY A FIRST-CLASS OPEN KETTLE, open pan and vacuum pan sugar maker, a position for this coming grinding season; best of references can be given. Apply to FELIX SERPASSE, St. Bernard P. O., La. 4-27-98

WANTED—POSITION ON A PLANTATION AS assistant manager, time or book-keeper; could take charge of a stable; I am a married man, 30 years old; have good references as to habits and capability; all letters will receive prompt attention. Address WILLIAM DETTRICH, Hammond, La. 4-23-98

WANTED—A POSITION AS RAILROAD trackman on some plantation. Address K., St. Bernard P. O., La. 5-10-98

WANTED—A POSITION WITH A LARGE firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address SUGAR MAKER, care this office 4-16-98

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—A POSITION AS CLERK OR ASSISTANT overseer, on sugar plantation; can give best of references as to ability and character. Address 500, care PLANTER.

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommends the best in the State. Address J. FRANZ, Eureka, St. Louis county, Mo. 4-6-98

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. R. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS IN the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98

WANTED—A CARPENTER, WITH LARGE experience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EXPERIENCE in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98.

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Palincourtville, La. 3-18-98

WANTED—A POSITION AS CHIEF ENGINEER and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES position at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in a plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compté, La. 2-23-98

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 38 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

WANTED—A CROP TO BOIL THE COMING season; first-class references furnished. Address H. G. Hill, Ponchatoula, La. 3-26-98

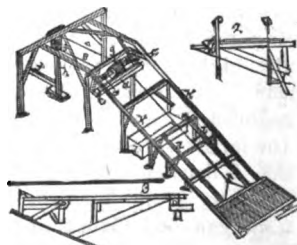
WANTED—SITUATION BY A FIRST-CLASS and experienced sugar boiler for coming crop, or as assistant boiler in some large factory. Best of references given. W. B., Box 62, Donaldsonville, La. 3-31-98

WANTED—A POSITION AS SUGAR MAKER and mechanic for Mexico; can furnish good references. Address JOS. SERRANO, 919 Poland street. 1-24-98

WANTED—A SITUATION AS MANAGER OR assistant manager on a sugar or cotton plantation; best of references furnished. Address JOHNSON, 5535 Magazine street, New Orleans, La.

WANTED—POSITION AS SUGAR BOILER FOR the coming season. Have had five years' experience and can furnish good references. Address U. WEBRE, Central, La. 1-20-98

WANTED—A POSITION AS SUGAR MAKER for the 1898 crop, by a boiler of fifteen years' experience in refinery and plantation work; best of references from former places. Address R. J. W., 824 First street, New Orleans. 1-15-98



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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

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DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

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AND

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Texas Sugar Planters' Association.*

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The Louisiana Sugar Planters' Association.

The June meeting of this association was held on Thursday evening, at its rooms on Carondelet street, and was one of the most interesting and successful meetings held by the organization during the past year. The attendance was exceedingly good, and the topic under discussion, "The Use of Lime and Sulphur in Sugar House Work," aroused much interest and brought out a great quantity of valuable data.

Judge Emile Rost, president, was in the chair, Secretary Dykers at his desk, and among those present were Messrs. John N. Pharr, Professor Wilkinson of Tulane University, C. R. Churchill, John Baldwin, Jr., A. S. Crozier, D. Jessurum, W. B. Schmidt, H. G. Morgan, Jr., W. C. Stubbs, John Dymond, E. W. Deming, L. M. Soniat, Prof. R. E. Blouin and a large number of others.

On motion, the reading of the minutes of the previous meeting was dispensed with.

Mr. C. S. McFarland, of Burnside, La., was proposed for membership by Mr. C. Robert Churchill, and unanimously elected.

There being no other new business before the meeting the regular topic of the evening was then taken up and papers thereon were read by Prof. R. E. Blouin, of the Sugar Experiment Station, and Mr. E. W. Deming. Professor Blouin made some interesting experiments in connection with his paper, and both gentlemen were thanked by the association for their valuable contributions and the papers ordered published. They appear elsewhere in this issue.

A full and exhaustive discussion of the whole subject matter then ensued, during the course of which many points of vital interest to the whole sugar world were brought out. A full stenographic report of the discussion will be printed in THE PLANTER next week,

containing the remarks of Messrs. Stubbs, Pharr, Jessurum, Blouin, Wilkinson, Churchill, Dymond and other participants.

At the conclusion of the discussion the subject of "The Best Method of Firing, or the Best Type of Boiler Setting for the Economical Burning of Bituminous Coal" was proposed for discussion at the next meeting and adopted. The meeting then adjourned.

The Louisiana Cane Crop.

From nearly every section of the sugar district come reports this week of rains, which have been of varying extent and heaviness, and practically every part of the sugar belt has received some moisture, though there are very few localities which chronicle a sufficiency.

The crops, of all kinds, exhibit very marked improvement wherever any appreciable rainfall has occurred, and the apprehensions on the score of drought are now allayed in almost all localities. In but few sections does there seem to have been any damage done by the dry spell which is of so serious a nature that it can not be repaired by the propitious weather which is now making its advent.

Feeds and Feeding.

We had occasion recently to refer to the valuable work on "Feeds and Feeding," published by Prof. W. A. Henry, of Madison, Wis. The book has attracted wide attention during the few months that have elapsed since its first publication, which shows the keen interest American agriculturists are now taking in all things relative to plant growth and animal nutrition. The book is a handsome octavo volume of over 600 pages, and can be procured from the author, or from this office, and will be delivered postpaid to any address in the United States for \$2.

That the merits of Professor Henry's book are great is evidenced by the fact that the leading English agricultural journal, *The Field*, published in London, in its issue of April 16, refers to it in the following words:

"Feeds and Feeding," a handbook for the student and stockman, by Prof. W. A. Henry (the author, Madison, Wis., U. S. A.), is no ordinary work. In more senses than one it is a volume of an exceptional character. Bulky in size, extending to about 650 pages, it is comprehensive in scope, unusually minute and definite in detail, and singularly free from ambiguous padding. The first thing, perhaps, which strikes the reader is the agreeable clearness with which the abundant facts are made to stand out in eye-catching fashion, instead of being hidden away in endless pages of needless verbiage, as is unfortunately a common fault in many of the works on this subject. Professor Henry has wisely dispensed to the utmost possible extent, consistent with reasonable explanation of the facts and figures produced, with generalities and commonplace repetitions, and as a result the reader has not long to search, and seldom to search in vain, for the specific information he desires. The volume, as we have indicated, is brimful of solid facts, relating in their astonishing diversity to all conceivable departments and phases of the stockbreeder's calling. The leading aim of the author has been to produce a standard work on live stock breeding and management, and in order to realize his lofty ideal he has spared no reasonable effort, nor allowed himself to be restricted by any narrow prejudice from legitimately utilizing the best European sources of information in supporting or elaborating the conclusions taught at the American experiment stations. From all possible sources, irrespective of nation or locality, the author has endeavored to select data important in establishing principles, and helpful in directing rational practice, while he has also had recourse to all available sources for the experiences and observations of practical stockmen. The result, in the shape of this extremely valuable volume, fully justifies the means adopted in its compilation. The reader, whether student or practical farmer—and it matters little whether he be British or American—will find the book a most instructive, trustworthy and convenient companion, forcibly written, admirably arranged and indexed, and abounding in facts.

Molasses and Mules.

In a recent issue of the *Franklin News* it is stated that Hon. Walter O'Neill has lost several of the finest mules on his Linwood plantation, which loss was supposed to have been from an overdose of molasses which had been run from their ditches into his pasture from the sugar house, which had been in operation drying out the third sugars of last season.

There was formerly much skepticism concerning the value of molasses as mule feed, but now the experience of years in this country as well as in foreign countries indicates that the molasses is excellent mule feed. We can hardly conceive that Mr. O'Neill's mules should have died from the effects of

molasses, unless some extraordinary quantity of it had been consumed by them and that they were entirely unused to it. If mules had free access to wheat, they might eat enough to kill themselves. It is well known that when cows break into the feed bins that they will eat grain to a point endangering their lives. This may have been the case with Mr. O'Neill's mules, but we are inclined to think that their death came from some other cause.

Molasses has been conclusively proven an excellent mule feed, lacking only in nitrogen to make it strictly first-class. Where mules are fed with molasses, and oats, and pea vine hay, an almost perfect food supply is reached.

Louisiana Press Association.

The annual meeting of the Louisiana Press Association has been called to take place at Shreveport, on Friday and Saturday, July 8 and 9. This meeting of the association is thus called because the dates are at the season of greatest leisure for most of the fraternity in this State, and will permit of a proposed excursion to Omaha and the Trans-Mississippi Fair at Omaha immediately after the adjournment. The members of the press generally throughout the State are taking a very keen interest in the affairs of the association, and it is thought that the meeting at Shreveport will be a grand success. Shreveport is so easily accessible by its many railroads, some sixteen passenger trains entering the city daily from various directions, that the members of the country press generally will thus be so facilitated in their arrangements incident to their journey that a greater number than usual will be able to attend. President Bentley and Secretary Scott are both putting their shoulders to the wheel, and we hope that the meeting of the association at Shreveport in 1898 will justify the earnest efforts they are now making and continue the association in active progress along its lines of excellence and improvement.

Fall Planting Sugar Cane in South Florida.

[Special Correspondence.]

Editor Louisiana Planter: Having read Dr. Stubbs' idea on the fall planting of sugar cane I am induced to contribute to your columns one more article. For years I have been convinced of the superiority of fall planting over

that of spring planting. But two points occur to me that need be mentioned in proof of this superiority, viz., the certainty of a supply of fresh, sound seed cane in the autumn, and the more perfect maturity of fall planted cane, the result of the longer period of growth. The latter reason is quite sufficient to establish the point of superiority.

As to the liability of seed cane planted in the fall to spoil by dry rot or otherwise, it can never equal the injury the seed cane will suffer by staying in windrows to await planting in the spring. I have heard no little complaint of seed cane here in Florida spoiling in the mattresses or large windrows from overheating, dry rot and occasional freezing by too light covering, and also from letting the canes stand until winter for better maturity and cooler weather. About twice in each decade many lose every stalk of their seed cane by cold weather, and this even in the most favorable localities. October seems to be the month giving the best results in every particular, but I can not argue all the points here, nor in one article. We could, however, take risks in November here in Florida with less liability to injury than you have in Louisiana. Mr. Spreckels said some years ago that sugar cane never reached its full sugar content until ready to tassel, and this never occurs under one year's growth, and often not so early as that. How then can your Louisiana planters possibly calculate on anything better than two-thirds of a good yield at eight months old, more or less?

October planting with all the ordinary setbacks you might suffer, would give you eleven months at least for growth and maturity, which certainly should give a third better yield than your spring planting could possibly do. Another noteworthy feature in fall planting is that the crop can be manufactured into sugar before the cold weather will interfere with labor or so damage the cane as to interfere with the quality of sugar or syrup. One matter that should be carefully included in the line of reasoning is that nothing less than a decade of years will fairly settle the comparison of the two crops. The investigator must consider the ordinary difference in seasons, the character of the different soils, as to age, occupation, drainage, and irrigation if utilized, as well as fertilization. The preparation and cultivation of the soil demand special attention and affect the fall crop as well as that of the spring.

We have here a root crop very similar to the cane, which deserves attention, as it is likewise a tropical plant. It is cassava, and is becoming quite common with cultivators and manufacturers for starch and tapioca. I have no doubt that by fall planting and light protection of the stubble through the winter, so that it would have time, like the sugar cane, for maturity, your fine sandy soils in Louisiana would make it to perfection.

I have seen in my last copy of *THE PLANTER* that the dry weather has struck you at last. I must tell your readers that the older settlers here have never seen the equal of the drought all over South Florida. Yet in these high sand hills among the lakes of eastern Polk county, we are faring better than any of the lowland sections who are unable to supply water for irrigation. Many of the orange trees in the deep sandy soil of the hill on which I live have not wilted in the least and now spread a tender growth 18 inches long and still they grow. Nor are my trees throwing off the small crop of fruit set in the spring, but bid fair to furnish a supply for family uses.

S. W. CARSON.

LOCAL LETTERS.

Ascension.

[Special Correspondence.]

Editor Louisiana Planter: The official record kept by Local Observer Park for the month of May shows that we had less than a half inch of rain during the entire month, the exact figures being .1 of an inch on the 3d and .33 on the 27th, a total of .43. There were several "traces" on other dates, but only "dust fleckers" of almost infinitesimal proportions, too light to justify measurement. It was true of Ascension as well as most of the other parishes of the State that the month was one of the driest Mays of which we have any record. The last rain in April was on the 23d, when the precipitation measured .40 of an inch. June starts in much more encouragingly from a weather point of view, this vicinity having already been blessed with three rainfalls since the beginning of the month, .92 on the 2d, 2.10 inches on the 3d and .05 on the 6th, an aggregate of 3.07 inches for the first six days of the month. It is true the falls have been mostly of a local character, and while some few sections of the parish have had an ample supply of moisture for the time being, others are still lacking in that respect, but all have had some, and there has been a very great improvement in crop conditions in consequence. An illustration of the circumscribed area of the precipitations is furnished by the fact that while Donaldsonville was enjoying her 2.10-inch deluge Monday afternoon ploughing was continued without interruption on the Peytavin plantation, which adjoins the town line on the east.

The temperature record for May shows a maximum of 96 deg. above zero on the 25th of the month, and a minimum of 47 deg. on the 7th. The maximum since the advent of June has been 94 deg., registered on the 6th, and the minimum 67 deg., on the 4th, 5th and 6th.

The river has fallen but slightly during the past week, the gauge reading Thursday morning being 23.9 feet above low water mark.

The expectation that Tuesday's meeting of the Ascension Branch Sugar Planters' Association would prove an interesting one was not disappointed. There was a good attendance of members, and the proceedings were spirited and of more than passing importance, particularly with regard to the discussion of the road problem, which is probably the gravest local question now confronting our people. Hon. Henry McCall, president, occupied the chair, and Secretary-Treasurer F. B. Lemann was at the clerk's post of duty.

Among the members present were Messrs. Bernard Lemann, E. H. Barton, E. N. Pugh, Col. J. E. St. Martin, Capt. John T. Nolan, Myer Lemann, C. Kline, Drs. W. M. McGalliard and John D. Hanson and L. E. Bentley.

The minutes of May 3 were read and approved, and so was the report of the secretary-treasurer. The house committee reported having performed the duty of securing the installation of electric lights in the club building, in accordance with the authority given the committee of the association, and the im-

provement was cordially approved. Reports from the dinner and ball committees were also received and adopted, and the committees discharged with thanks.

President McCall spoke of the condition of the public roads of the parish and deplored the entire lack of any well defined system for the repair and maintenance of these important avenues of public travel and communication. Already, after a prolonged period of extremely dry weather, a few showers of rain have made the roads in some localities—and especially those traversing Smoke Bend, Port Barrow and other settlements along the river and bayou—execrable, and rapidly approximating the terrible condition which prevailed in January and February. The discussion became general, and it was the united opinion of the members that the parochial authorities should take the important matter in hand at the earliest practicable time and adopt a system that would insure good roads to the parish at all seasons of the year as far as practicable. Dr. Hanson gave expression to the unanimous view of the meeting when he declared that no expenditure of public money could be made to better advantage or to the greater satisfaction of the community than in the improvement of the public roads.

Amid the expressions of approval elicited by this terse declaration, Mr. Kline got in his motion and the association adjourned.

ASCENSION.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The drought was broken on Thursday of last week by a fine shower which extended over nearly the whole parish, and which was followed on Friday and Saturday by slow drizzling rains. It is needless to say everybody and everything rejoices, and while there has not yet been a sufficient rainfall at any place, local showers have fallen here and there, and the prospects for their continuing are very good. The weather is warm and the cane will rapidly catch up. Corn has taken on its rich green color and the pease are all up to a stand. The time to begin laying by has come, but the size of the cane in general is so small that this work may be delayed a few weeks.

While in the upper part of the State recently we saw several fine patches of alfalfa and spoke to several persons having other patches, and all were enthusiastic about it. They claimed that on the red clay soils it grows splendid, affording four or five cuttings of excellent hay. We are glad to learn that several experiments are being made in Iberville with apparent success. Mr. William B. Robertson, of Plaquemine, one of our most intelligent cultivators, has one acre and a half in this wonderful plant which was sown last November. The first cutting was had about the first of April, and it has since yielded more than enough hay to feed fourteen mules, besides his horses, cows and calves and hogs. In fact Mr. Robertson will store a lot of it. Messrs. Roth & McWilliams, of Plaquemine, have a small patch on their Medora plantation and will put in ten acres another year.

Mr. Leonce M. Soniat has begun to lay by the cane on his Whitecastle plantation. Although small it is fine condition.

The Holly Farm and Belfort plantations on Bayou Plaquemine were sold this week by Widow Belfort Marionnaud and Mr. Edwin Marionnaud to Mr. Charles E. Grace, of Plaquemine, for \$22,000. Mr. Charles Tircuit, of St. James, will manage these places.

By stopping up several of the main drains some of the rice planters of the Fifth Ward have interfered with the drainage of their neighbors' places that are planted in cane, and several injunction suits have resulted. Sugar planters are generally good-natured and mild, but they act quickly when their drainage is stopped.

Hon. James A. Ware, of Belle Grove, was recently summoned to the side of his father, Mr. Henry Ware, in Pass Christian, Miss., who was reported to be dying. Mr. Ware preceded his son in the ownership of Belle Grove, and is well known to the planting fraternity of this State.

Mr. Lewis E. Woods, of Plaquemine, lessee of the Kuneman plantation, met with a painful accident this week, having been thrown from his buggy by a runaway horse. He had two ribs broken and received a number of bruises.

For lack of a quorum there was no meeting of the police jury last Monday. The planters are all very busy at this season, and as there were no important matters requiring attention the good people of Iberville will not think hard of their parish fathers for this skip.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: At last the rains that have been prayed for during the past seven weeks have come to relieve the parched crops. Last Saturday a delightful shower fell in the central portion of the parish, followed Monday evening by a perfect downpour which was of incalculable benefit to all the crops. As several additional showers have fallen during the week it would seem probable that we are on the verge of a rainy spell which will afford ample moisture for all purposes.

It goes without saying that those rains have made a wonderful difference in the general condition of the growing crops.

Cane is picking up all along the line and now presents a more vigorous and healthy appearance than it did some time ago. While the crop is backward in every way, it is believed that it will now grow very rapidly and in a measure "make up for lost time." It has been well worked during the drought, and is, therefore, in good shape, so far as that particular matter is concerned.

As stated last week, the corn crop has been seriously, if not irreparably, injured. If a half crop is made our people will be lucky. A few planters have fairly good, though small, corn, but the crop, as a whole, is in very bad condition.

No complaint is heard as to the condition of the cotton crop, which is said to be doing very well. The acreage, however, has been materially decreased.

The river has fallen but little during the past week.

Heavy clouds this A. M. indicate more rain in the near future for

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The drought was effectually broken by the refreshing rains of last week. From every point in the sugar district comes the gratifying fact that abundant rains have fallen. In Assumption the heaviest rains seem to have fallen from Napoleonville to a point about even with Abbeville P. O. Above and below this section the showers were not so frequent nor as heavy. The smiling faces of the farmers show the marked benefits of the precipitation, coming as it did when all vegetation seemed parched and dying. The fields present a much more favorable appearance than they did a week ago, thrifty and green, they seem to be making up for lost time, and the grass and milkweed as well seem to have been marshaling in force to greet the life-giving drops. Planters aver seriously that you can hear the corn pop, its growth is so rapid. Be that as it may (we of course can not doubt the veracity of such a truthful individual as the sugar planter), there can be no question that the corn is vying with the cane in its efforts to rise to a higher level. The peas, too, after laying dormant in the ground for many days have come up to see what the stir is about and perhaps to hear the war news. The rains are particularly gratifying to the rice planters, as is the fact that the Lafourche still tarries at sufficient height to enable them to irrigate without the necessity of pumping. The area planted in this cereal in Assumption will exceed largely that of last season, and as the crop is promising and the price way up, rice men may look as happy as Dewey has a right to be.

The news of the recent marriage of Dr. Jos. Blanchard to Miss Agnes Rochelle, of Patterson, was received with pleasure by his many friends, who wish him many happy years of wedded bliss with his bride, who is a social favorite in St. Mary. Dr. Blanchard has returned to his old parish, and at home to his many friends.

The prospects of the near completion of the branch of the Southern Pacific to Napoleonville are very encouraging to those who have long wished for railroad communication. This will doubtless develop the cane-growing interests in Assumption along the line of the road. It will only be a question of time when there will be a line running along the east bank of the Lafourche, and the farmers there will have an opportunity to go into the raising of cane on a more extensive scale.

The bill introduced by Mr. Marks in the Legislature providing for an insurance commission strikes a responsive cord in Assumption. The planters, as well as the citizens of Napoleonville, have suffered much from the imposition of the insurance trust, and the three-fourths country clause is but one of the many features that try the souls and tempers of the insured. But of this and other matters,

MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: A week ago the majority of the planters were anxiously looking for rain and now they are equally anxious for favorable weather to enable them to exterminate the rapidly appearing extraneous vegetation, the result of the copious precipitations which have recently fallen. In localities the rainfall has been in excess of crop requirements (about four inches), and it was most fortunate that the bayous and swamps were empty, or crops in low lying fields, particularly the young pease, would have been injured by the excess of moisture. But little work has been done, except with the hoe, as the land has been too wet to plough, and it will require but little rain to keep the ground too moist to plough advantageously this week. Prolonged wet weather will prove detrimental to the crops, and it is to be hoped clearing weather will prevail to enable cane growers to expedite laying by, an operation which is always attended with great mental anxiety. Fortunately, after the heavy rains the sky has been somewhat overcast, and the land has not become baked, consequently the color of the crops has improved and they have made rapid progress. Favorable weather will cause the cane roots to develop very rapidly and the work of laying by can not be delayed whenever the land is sufficiently dry to work well.

Some planters object to the single plow, but there are times when it can be used to great advantage—for instance, when the upper crust may be too moist to use the disk cultivator. To upturn wet furrow slices at this season will be to counteract the benefits of previous preparation. There is yet ample time to lay by the crop in good order, and as risks have to be taken, better far wait in the hope of favorable weather rather than plough when the land is not in a pliable condition. If this crop can be laid by in good order, as was the case last year, the tonnage yield should be good, although the canes are somewhat short for the season.

In the first week of June, about four inches of rain have fallen, and hence there are reasonable grounds for believing that for the balance of the month planters may escape any great excess of moisture. Those who had their canes well ridged before the advent of the heavy rains will reap the benefit, as the work to be done will be less laborious on man and beast, now that the weather has become very hot.

The official monthly report from Schriever for May puts the highest temperature at 97 deg. on the 28th, and the lowest 43 deg. on the 7th and 8th, and the total precipitation at only 50, with twenty-seven clear days.

Wednesday of last week was foggy in the morning, with local showers later; Thursday a heavy rain, with wind storm; Friday, light rains in the morning and very cloudy in the afternoon; Saturday, cloudy early, with heavy rains later; Sunday, lovely morning and distant showers in the evening; Monday, fine before noon, with local rains after noon; Tuesday, favorable, and Wednesday morning bright sunshine, with heavy dew.

The official weekly report from Schriever is as follows:

		Temperature.	Sunshine.	Rainfall.
May 30.....	91	62	100	.....
" 31.....	95	66	100	.....
June 1.....	98	64	100	.....
" 2.....	94	67	25	.98
" 3.....	84	67	.....	1.21
" 4.....	78	67	25	1.59
" 5.....	84	64	50	.20
	88	65	.57	3.48

TERREBONNE.

St. Mary.

Business can now open up. The glorious rain has come; the crops are saved and everything can go forward.

Work of a general nature is getting a little more plentiful, and money appears to circulate with an easier movement.

The cane crop withstands the terrible drought and holds its green color, but it does not grow much. The corn crop in some places promises a fair yield, but in others it is said to be a complete failure.

Great quantities of hay arrived here this week for Belleview plantation. Some people may think it strange that we do not raise all of this article necessary to feed the stock, instead of buying it elsewhere. The *News* will answer that question by telling them that St. Mary land is too valuable to waste in raising hay—we're after bigger fish.

Some of our sugar plantation friends who had intended to put in material improvements this year have suspended operations on account of the war. Some of them think that the Philippines and Cuba will be annexed to our government, made a part thereof, and consequently ruin the sugar industry because these islands are capable of supplying the world.—*News*, June 2.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: The general tenor of everything in this parish has been changed since June 1, on which day and for several successive days thereafter most magnificent rains fell in all parts of the country for twenty miles round about Abbeville. This rain brought tidings of great joy to the farmer, for in it he saw fond hopes for a speedy revival of his suffering crop and an ultimate bountiful harvest in the fall. These rains were general and the verdict is that we have enough for the present. The general crop is much improved since the rains and the fine growing weather that we are having now will accelerate the advancement of the crop. Cane is getting back its natural color and it is very gratifying to note that in many places where stubble had not come up to a good stand it is now sprouting out. The cane crop, though small for this time of the year, is very promising and with a good season will yield a full harvest. Already preparations are being made by the refineries and the Southern Pacific Railroad Company to move the crop at harvest time. General Superintendent Owen, of the Southern Pacific, came out along the Iberia & Vermilion Railroad on the 7th inst.

with a force of men and laid off extensions at the following switches necessary to facilitate the moving of cane this fall: Lee, Pouffette, Delcambre, Erath, Young and Abbeville. Heretofore these switches have been amply long to handle the cane, but the vast increase in acreage this year calls for more track room. Corn is looking splendidly and a fair yield is now assured. Most of the corn in the parish is small for the reason that the cut worms and the chinch bugs destroyed the first planting. It is now growing several inches a day and with one more good rain in a couple of weeks will mature.

Cotton is growing very nicely, though it is small. Contrary to former reports, the acreage is now reported to be an increase of at least 15 per cent. over last year. This, however, was caused by the dry weather; many farmers who had decided to try "providence" rice instead of cotton were unable to plant the rice and were forced to plant cotton. The "providence" rice farmer is happy now; he has plenty of water on his young rice, and by means of reservoirs has caught enough to withstand another dry spell. Some of those farmers, however, have not finished planting yet, but claim at this late day with good rains a full crop of rice can be raised. The several canals throughout the parish are not being drawn on for water just now, but instead the planters are cutting their levees and letting a part of the water off, there being more than is required for the young rice.

Mr. E. H. Gueydan, of Gueydan, and secretary of the Vermillion Development Company, is in Abbeville now transacting business.

Mr. Eli Wise, a prominent merchant of this place, and who is also interested largely in rice, left on the 7th instant for Hot Springs.

Mr. Martin Bagley, of the Ramsey plantation, is in New Orleans this week looking after his interests.

Mr. Lastie Broussard, a successful cane planter of Vermillion, went to Baton Rouge last Tuesday, the 7th.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: The weather has grown warmer and somewhat damper since the first of the present month. But the rains which have fallen have been very partial; for instance, the country in the vicinity of Theoda and Cheneyville has enjoyed good refreshing showers, while the country to the south of these places to Whiteville, St. Landry, is needing rain and seriously so.

Both corn and cane are suffering for want of rain, and unless it does rain during this week the corn crop on many of the best plantations on Bayou Boeuf through parts of Avoyelles and St. Landry parishes, will be the shortest known for many years. THE PLANTER'S scribe called this week on the manager, Mr. C. G. Fuselier, of the Powhontas plantation. In driving over the plantation in the care of the stirring young manager, I must confess that I was taken by surprise to find the crops of corn and cane looking so well as they were, considering that there has been no rain to speak of since the first of May. But as Mr.

Fuselier pointed out, unless he could get rain, and that, too, at an early date, his corn crop would to some extent be a failure. There is on the plantation 350 acres planted to corn, which has all been neatly worked, planted to pease and laid by. The greater part of the area to corn is of comparatively late planting, and should it rain this week it may in the end yield a fair harvest of grain and fodder.

The plant cane, of which there is 800 acres, is now giving promise for a heavy tonnage. The stubble cane on the place, of which there is something over 300 acres of first year, is very promising. Mr. Fuselier informed me that he had applied cotton-seed meal at the rate of 700 pounds per acre to his entire crop of stubble, and was hoping to obtain some good results from the same, but the weather has been so very dry that even with the best cultivation to be had the cane crop on the place is not as fully advanced as the manager would like to have it at this season of the year.

Cotton-seed meal has been applied, 500 pounds to the acre, on twenty-five acres of plant cane only, leaving 275 acres of plant cane with no other fertilizer than the pea, which is deemed sufficient for all purposes.

Fifty-five acres of oats had been harvested and stacked under shelter this spring, furnishing the greatest abundance of rich, healthy food for the work animals on the plantation. The same land will, as soon as a good season can be had, be planted to pease. More moisture is needed in the soil to bring the pease planted up to a good uniform stand. A force of men has been put to work clearing 150 acres of new land which it is expected, if sufficient labor can be obtained this coming fall and winter to clear the timber off, will be fitted for the plow and planted next season to corn.

Six acres planted to sorghum is now looking very promising.

Mr. Fuselier has for his assistant this season Mr. Stewart A. Wilkins, late of the Waubun plantation, property of Capt. John T. Moore, Terrebonne parish. Mr. Wilkins seems to think very highly of our rich Red river soil, the fertility of which is unsurpassed by any in the State.

Mr. H. Killeen, the master mechanic of the Powhontas shops, builds all the cane wagons, carts and plow beams from the native white oak chopped from the stump during the fall and winter months and seasoned under shelter. Mr. Killeen says he finds the wood superior for wagon and all other plantation work to anything offered in the market for the same kind of work. His own home-turned wagon and cart hubs are superb.

To sum up, the Powhontas plantation, with its able management, can not fail to make a big crop, providing, of course, rain will only fall in season to nourish and put growth into the promising young canes.

The crops in the vicinity of the Powhontas plantation and Eola, while promising, are now needing rain.

Messrs. Percy and Robert Irion have on their respective places some beautiful plant cane which would be the better for rain to push it forward to growth.

Mr. J. C. Caldwell has some acres of grow-

ing plant cane on his pretty place, but he informed me that he was needing rain.

Mr. C. F. Knoll, as well as other prominent planters, reports cane, plant in particular, as suffering seriously for want of rain. ERIN.

Demerara Sugar Experts for Africa.

By the last mail Mr. Andrew Hunter, acting as the agent of "The Companhia do Assucar de Mozambique," dispatched two pan-boilers (Mr. Paul and Mr. Jupiter) and two triple boilers (Mr. Croal and Mr. Saunders) all natives of Demerara, to England, where they are to embark for Eastern Africa, their destination being the company's property on the Zambesi, which is situated three or four days' journey from the mouth of the river. This Portuguese company is under the directorship of Mr. Hornung, an Englishman, and is being carried on with considerable success, notwithstanding certain drawbacks such as the invincible stupidity of the native laborers, and the plague of locusts, which at times come down in dense black clouds and destroy every green leaf on the estate. The land is flat, like that of our colony, and the ploughing of the soil is all done by steam, as is also the making of the small drains. The crop is already up to 4000 tons, all of which is admitted into Portugal under protection, and fetches about £20 per ton. The rum finds a ready market in the Transvaal at about four shillings per gallon. There are several Demerara men on the estate, among them Mr. McKenzie, the field manager, and Mr. Hunter, the deputy manager. The four experts who have just gone on from here are all experienced men, thoroughly up in their art, and of steady, reliable character. We hope to hear of their success among the Portuguese, although we regret that our own colony has not sufficient inducement to offer them to remain here.—*Demerara Argosy.*

Mr. Benjamin H. Pring, of Oneida plantation, St. James parish, was in the city on Wednesday.

Hon. James A. Ware, of Iberville parish, was a recent visitor to the city, and during his stay stopped at the St. Charles Hotel.

Mr. L. Ohlmeyer was the sugar boiler during the past crop season on the Germania plantation of Mr. V. Schwann. Mr. Ohlmeyer has been in charge of the vacuum pans on some of our largest and best equipped plantations, and has turned out some of the finest crystals ever placed on the market.

Mr. J. M. Tierney was the manager at the Justine refinery of Mrs. J. L. Darragh during the past campaign. Mr. Tierney has been on Justine for several years, and is evidently the right man in the right place. Justine is being constantly improved under his able supervision.

Messrs. Fulton Bourdier and Clarence Bourdier had charge of the boiling department on the Waveland place during the past grinding campaign. These two gentlemen are good sugar boilers and are favorably known all over the sugar district as skilful and careful men, who have made a thorough study of their profession.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, May 21, 1898.

Editor Louisiana Planter: It certainly is no pleasant thing to repeat ever and anon the same story, but with regard to the weather this spring I am sorry to be obliged to bother your readers with the never-changing information that we had again a week of cold, stormy and rainy weather; nay, if the weather question was not growing in importance the more the season advances, I would pass it over silently until the long-wished-for change has finally set in. True, this week began a little warmer, and the sun made a feeble attempt to break through the clouds, but the following days have been the more disagreeable, and field work was again interrupted, more particularly the beet sowings were hopelessly interfered with, leaving still a large part of the area to be planted undone. But the unfavorable weather is not the only trouble sugar growers have to contend with. Labor is getting scarce, and as on account of the adversities of the weather no or little preparatory work has been done, the hands now available do not suffice to make up for the backwardness, and from that reason it is even feared that not the entire surface formerly reserved for beet growing can be used for that purpose. That the beets sown comparatively early had a good coming up I have stated already, but their growth is slackened under present circumstances, and they are in danger of becoming the prey of insects which, in consequence of the mild winter, are supposed to be this year more numerous and therefore more dangerous than ever. At present writing the sky is clearing up and the temperature rising. Let us hope that therewith a period of fine weather is to be ushered in, otherwise the results of the crop will be greatly compromised. Outside of Germany they have not had the proper kind of weather, and particularly France, which at first was quite ahead of all other countries, is now loudly complaining. But satisfactory reports are to hand from Belgium.

The general assembly of the German societies of the sugar industry, which originally was proposed to be held on the 20-24th of June, at Heringsdorf, on the Baltic seaside, will, on account of the Imperial elections, take place only on June 26-30, at Berlin.

The opening of the bounty conference, which has been fixed for June 7, is also possibly postponed; at least Lord Hamilton has declared, in the English House of Commons that a postponement to a later date was quite probable. With regard to the conference, some correspondence of the Belgian government with the other powers has been published from which it appears that all countries invited are willing to abolish the sugar bounties, except France, who insists on maintaining her indirect subsidies, pretending that the latter are only an interior affair which no other power has a right to meddle with. In this respect, it must be remembered how France, prior to 1884, when Germany enjoyed also indirect bounties,

cried for the same weapons to fight their opponents on the markets of the world. Germany has long ago laid down these weapons, or, if you like it better, has changed them by introducing direct bounties; but France has kept the former and added the latter. But however this may be, the German sugar producers expect and wish only a solution of the bounty question, consisting of a total abolition in all countries, an object which hardly will be reached, for, quite apart from France, with her restricted and conditional consent to take part in the conference, there are different countries who will not join in the movement or who are not even invited.

The commercial treaty existing between Germany and England was some time ago denounced by the latter country on behalf of the colonies, who want to grant better tariff conditions to the other English colonies or desire to get them from same. As an example of this policy it may be mentioned that in Canada English colonial sugar is favored as compared with beet sugar. The treaty in question would, in consequence of its being denounced, have expired on June 30 next, and in view of this fact negotiations have been opened between the two powers in order to secure a new agreement of this kind. This object, however, it seems, will not be reached in due time and therefore the existing treaty is prolonged for another year so that it will expire on June 30, 1899.

From the last returns of the statistical union it appears that as far as the surface planted is concerned, Russia now takes the lead of the European beet sugar producing countries, her area devoted to beet culture amounting to 444,650 hectares, whilst Germany, who is by far the largest producer, can boast of only an area of 423,785 hectares. Based on the results of the last few years the crop of Germany may be estimated at about 1,800,000 tons, while that of Russia will hardly exceed 850,000 tons. At first glance it must seem quite a puzzle that between the two countries a difference of this magnitude should be possible and that Germany, with a smaller beet-growing surface, should produce about twice as much as Russia. However, there are several causes productive of this inequality of the German and Russian crop results. First of all, in Russia the beet crop per hectare is much smaller than in Germany; last year (1896-97), for instance, it amounted to only 16.3 tons, as against 32.3 tons in Germany. This is partly due to the climate, which, like in America, can not be relied upon, but partly the small crops are also the outcome of the custom not to hire the farm laborers for certain space of time, but to contract with them for a certain piece of the area, which leaves the laborers almost at liberty to do their work as good or as bad as they please. The laborer has to do all work, from planting to harvesting, and to make it as little onerous as possible he would take care to discard, in thinning out, as many plants as possible. And such careless working affects not only the quantity, but also the quality, and if you add the less perfect working of the average Russian factories (although some of them leave nothing to de-

sire in this respect), you will be able to explain the startling difference between the crop results in the two countries in question.

The small change for the better in the market noted in my last letter has during this week turned out to be the commencement of decided improvement, caused principally by purchases for the United States and Canada, the bad weather aiding effectually to strengthen the upward movement, which, after the late dull weeks, was quite a surprise to the trade. Legitimate and speculative buyers competed to secure the parcels on offer, which, however, as owners are more reserved, are by no means important. Prices have advanced in Germany full 25 pfennigs for the week, and quotations for actual 88 per cent. beet sugar are now, at Magdeburg, 10.45 to 10.75 marks, and Hamburg reports for May delivery 9.60 marks, f. o. b. Refined are also more active and 25 pfennigs higher.

ROBERT HENNIG.

Lehi, Utah.

What a contrast between this season and last. At this time last year the crops were burning up for the want of rain. The wind blew continually either from the north or south, and many of the young plants of the sugar beet had to be irrigated to keep them alive.

It has been impossible to thin the sugar beets because of so much rain, and many of the plants are much larger than ever before. What effect this will have on the growth of the plant remains to be seen hereafter.—*Banner, May 24.*

Watsonville, California.

Martin Bonde has a choice field of beets at the Lake farm.

There are going to be some big beet crops in the Moro Cojo district this season, if present promises will do to bank on.

The *Anaheim Gazette* says the Alamitos factory will run, and that about 700 acres near the factory show a good stand in beets.

The *Cbino Champion* says the big rain will increase the acres of good stand of beets by 500 and the total yield at Chino 10,000 tons.

John McGowan has planted sixty acres of his farm to beets since the big rain. The land had been planted to potatoes and the spuds did not show up well, so Mr. McGowan put in a beet crop.

The pulp pile at the terminus of the factory cable line is a busy place. The Watsonville Cattle Company, Christy & Wise and John Lacrabere are taking large quantities daily from the big deposit to feed to their stock, and several dairymen are also being supplied. The pulp is in choice feeding condition. There is an immense pile of it—by some estimated at over 25,000 tons.—*Pajaronian, May 26.*

Chino, California.

Mr. Roupp tells us that there is a good stand of beets to date on over 2000 acres, and that acreage is all thinned. There are over 1000 acres more planted which give promise of a good stand.

Since the rain of last week there have been planted in the neighborhood of 300 acres. Much of this is now up. The warm, moist soil is pushing the growth vigorously now on all the fields. The rain was of immense benefit. On many of the fields where the stand was thin before, the dormant seed has since sprouted and the plants are growing strongly. The yield will be greatly increased throughout.—*Champton, May 27.*

The Clarification of Cane Juice with Lime, Sulphur and Heat.

[A paper by PROF. R. E. BLOUIN, read before the Louisiana Sugar Planters' Association, June 9, 1898.]

Cane juice, as extracted by mills from the sugar cane, contains sucrose or crystallizable sugar, glucose or non-crystallizable sugar and solids not sugar, the latter consisting of mineral matter or ash, albuminoids, amids, gums and organic acids, varying in quantity, within certain limits, with the degree of maturity of the cane.

It has been found that the internodes give a juice quite different in composition from that of the nodes; the juice from the nodes contains less glucose and more "solids not sugar." With light pressure the juice from the internodes is mainly extracted, and is comparatively freer from the objectional "solids not sugar;" while with heavier pressure, performed by the auxiliary mills, the juice from the nodes is extracted and contains a considerable quantity of them.

The object of clarification is to remove as far as possible the impurities present. Could all these impurities be removed and only sucrose remain in solution, sugar making would be an easy operation. Unfortunately such a degree of perfection is not yet attainable, and we aim to adopt that process which will remove the largest amount of impurities.

Science has confirmed the experience of ages in pronouncing lime as our best reagent in clarification. This substance aided by heat removes the largest amount of impurities. Since the days of Icery, sulphur has been used as an adjunct of lime.

ACTION OF LIME ON CANE JUICE.

Lime when added to cane juice neutralizes the organic acids, forming a precipitate comparatively insoluble in the juice and most of which is removed with the scums. It unites with the albuminoids and gums, precipitating a large quantity of them, and with the mineral matters removing the sulphuric, sulphurous and phosphoric acids, the bases iron, alumina and magnesia, in fact all the mineral constituents except potash and soda. This action is aided by heat.

The precipitate produced by lime and heat was collected in two portions—first, the scums, or those rising to the surface of the juice; second, the settlings, or those of higher specific gravity than the juice and falling to the bottom of the clarifier—and each analyzed.

Scums contained 59.2 per cent. of gums, 18.9 per cent. of albuminoids and 21.9 per cent. of ash.

Settlings, 60.7 per cent. of gums, 15.6 per cent. of albuminoids and 23.7 of ash.

The amount of ash shown here in each analysis is larger than that actually removed from the juice, containing the lime that is in combination with the albumenoids and gums.

Great care should be exercised in using an excess of lime in clarifications where high heat is employed before its removal, as it acts on the glucose, decomposing it into organic acids, which, in turn, unite with the lime, forming lime salts soluble in the juice. These acids are highly colored and darken the juice con-

siderably. The dark color of juices "burnt with lime" is due to their presence. These lime salts retard the evaporation and crystallization, and cause considerable annoyance in sugar manufacture. The removal of the lime from these acids by acids having a greater affinity for it does not reconvert them into glucose, but they remain in solution, retaining to a large extent their color and influence on crystallization, together with the power possessed by nearly all acids of inverting sugar. Besides this action, excessive liming at high temperatures also decomposes the albuminoids precipitated as well as those remaining in solution, converting them into amids and ammonia, which accounts for the ammonia frequently noticed coming from the clarifiers. This excess of lime continues its action and attacks both the amids formed from the albuminoids and those originally present in the juice, decomposing them into organic acids and ammonia. These organic acids in turn unite with lime, forming soluble lime salts. These acids, together with those formed by the decomposition of the glucose, are frequently in sufficient quantity to unite with the excess of lime and leave the juice acid, thus accounting for the acidity of a syrup from an alkaline clarification.

ACTION OF SULPHUR DIOXIDE ON CANE JUICE.

When sulphur is burned in the air it unites with oxygen, forming a gas called sulphur dioxide. This on being forced into cane juice unites with water, forming sulphurous acid. One pound of sulphur forms two pounds of sulphur dioxide.

Sulphur dioxide is quite soluble in cane juice, one gallon of juice being capable of absorbing thirty-three gallons of sulphur dioxide at the ordinary temperature and pressure, or the amount of sulphur dioxide formed from 6.33 ounces of sulphur. It is therefore possible to use 6.33 ounces of sulphur for every gallon of juice. This amount can not be forced to remain in the juice in ordinary sugar house work, as it has been found that it was quite difficult to cause the juice to absorb its full capacity of sulphur. In practice it is difficult to use more than .2146 ounces of sulphur dioxide, or .1073 ounces of sulphur per gallon of juice. With this amount, which is about three times that used in ordinary work, it was difficult to cause the juice to absorb it, and there was a copious escape of sulphur fumes from the juice.

All sulphur acids invert sugar very strongly when heated, sulphurous acid being the second strongest invertant of these acids and ranks fourth in our list of acids.

Experiments on the invertive power of sulphurous acid made by Dr. Maxwell at the Sugar Experiment Station show that at the ordinary temperature no inversion took place when the juice was allowed to remain an ordinary length of time (exact time not stated), but when heated for one-half hour at 150 deg. F. 23 per cent. of the sucrose was inverted, and heated one hour at 195 deg. F. practically all of the sucrose was inverted.

Sulphur dioxide when absorbed by the cane

juice raises the density in proportion to the amount absorbed and shows a corresponding decrease in the purity; this, however is only temporary, as on the addition of lime, sulphites are formed which are comparatively insoluble in the juice and removes the sulphurous acid. Sulphurous acid also precipitates some of the albuminoids and exercises a bleaching effect on the coloring matters of the juice.

Before discussing the results of the more important experiments on clarification, an explanation of the terms used, will not be inappropriate.

The acidity or alkalinity of the juices was estimated by means of a tenth (1-10) normal acid or alkaline solution, using phenolphthalein as an indicator, and is expressed in the terms of the number of cubic centimeters of alkali taken to neutralize ten cubic centimeters of juice for acidity and *vice versa* for alkalinity.

One cubic centimeter acidity being equivalent to .02146 ounces of sulphur dioxide to one gallon of juice, and one cubic centimeter alkalinity equivalent to .03755 ounces of lime to one gallon of juice. The proteids represent the total nitrogenous bodies in the juice, and are divided into albuminoids and amids.

The alcoholic precipitate is, as suggested by its name, composed of those bodies insoluble in alcohol, and consists of gums, albuminoids and mineral matters, each of which is estimated separately.

EXPERIMENTS ON THE EFFECT OF LIME AND HEAT IN CLARIFICATION.

In testing the action of the different amounts of lime on cane juice, every care was taken to have the mill and clarified juices to be representative of those clarified. The samples taken before and after clarification from the same clarifier. All juices are calculated to the same sucrose content for comparison.

EXPERIMENT I.

Juice had an acidity of 1.6 cubic centimeters, and lime added till .55 cubic centimeters acidity remained, requiring .0384 ounces of lime per gallon.

Mill Juice.

Acidity in cubic centimeter.....	1.600
Brix.....	14.610
Sucrose.....	12.000
Glucose.....	1.140
Solids not sugar.....	1.470
Purity.....	82.130
Glucose ratio.....	9.500
Proteids.....	.179
Albuminoids.....	.088
Amids.....	.096
Alcoholic precipitate.....	.181
Gums.....	.074
Ash in alcoholic precipitate.....	25.300
Albuminoids in alcoholic precipitate.....	35.430

Clarified Juice.

Acidity in cubic centimeter.....	.550
Brix.....	14.460
Sucrose.....	12.600
Glucose.....	1.140
Solids not sugar.....	1.320
Purity.....	82.980
Glucose ratio.....	9.500
Proteids.....	.128
Albuminoids.....	.029
Amids.....	.099
Alcoholic precipitate.....	.107
Gums.....	.048
Ash in alcoholic precipitate.....	46.870
Albuminoids in alcoholic precipitate.....	8.190

An increase in purity of .85 caused by the removal of some of the solids not sugar, the sucrose and glucose was not affected and of the impurities 28.4 per cent. of the proteids were removed and consisted entirely of albuminoids, the amids remaining unchanged and 85 per cent. of the gums were removed.

EXPERIMENT II.

Neutral clarification, mill juice, with an acidity of 1.8 cubic centimeters, lime added to neutrality, requiring .068 ounces of lime to one gallon of juice.

Mill Juice.

Acidity.....	1.800
Brix.....	14.850
Sucrose.....	12.000
Glucose.....	1.460
Solids not sugar.....	1.390
Purity.....	80.800
Glucose ratio.....	12.170
Proteids.....	.138
Albuminoids.....	.069
Amids.....	.069
Alcoholic precipitate.....	.212
Gums.....	.071
Ash in alcoholic precipitate.....	38.540
Albuminoids in alcoholic precipitate.....	34.350

Clarified Juice.

Acidity.....	.000
Brix.....	14.610
Sucrose.....	12.000
Glucose.....	1.450
Solids not sugar.....	1.150
Purity.....	82.130
Glucose ratio.....	12.090
Proteids.....	.086
Albuminoids.....	.013
Amids.....	.073
Alcoholic precipitate.....	.099
Gums.....	.068
Ash in alcoholic precipitate.....	29.090
Albuminoids in alcoholic precipitate.....	12.750

An increase in purity of 1.33 is noted. The glucose is not affected, but there is a decrease in the brix and solids not sugar; 38 per cent. of the proteids were removed and consisted entirely of albuminoids, the amids remaining practically the same; 53 per cent. of the alcoholic precipitate and 18 per cent. of the gums were also removed.

EXPERIMENT III.

Slight alkalinity clarification. Acidity of the mill juice, 2.1 cubic centimeters and lime added till juice showed an alkalinity of .9 cubic centimeter. The lime added at the rate of .11261 ounce per gallon.

Mill Juice.

Acidity.....	2.100
Alkalinity.....	
Brix.....	15.450
Sucrose.....	12.000
Glucose.....	1.870
Solids not sugar.....	1.570
Glucose ratio.....	15.580
Proteids.....	.129
Albuminoids.....	.068
Amids.....	.068
Alcoholic precipitate.....	.181
Gums.....	.083
Ash in alcoholic precipitate.....	28.750
Albuminoids in alcoholic precipitate.....	26.310

Clarified Juice.

Acidity.....	
Alkalinity.....	0.900
Brix.....	15.180
Sucrose.....	12.000
Glucose.....	1.680
Solids not sugar.....	1.550

Glucose ratio.....	13.590
Proteids.....	.078
Albuminoids.....	.016
Amids.....	.062
Alcoholic precipitate.....	.133
Gums.....	.099
Ash in alcoholic precipitate.....	25.180
Albuminoids in alcoholic precipitate.....	6.250

An increase in purity of 1.38 with this alkalinity is surprising, as the excess of lime was thought to be sufficient to decompose the glucose amids and albuminoids. The solids not sugar remain practically the same; this is caused by the partial destruction of the glucose, forming organic acids which remain in solution in combination with the lime, and in this case the amount of these acids formed was equivalent to the solids not sugar removed. Forty per cent. of the proteids were removed, and consisted entirely of albuminoids, the amids not being affected by excess of lime. The gums increased 19 per cent., this being due to the destruction of the glucose, forming acids resembling the gums.

EXPERIMENT IV.

Juice limed to 1.5 cubic centimeters alkalinity; the acidity of the mill juice before liming was 1.6 cubic centimeters; equivalent to .1164 ounces of lime added to one gallon of juice.

Mill Juice.

Acidity.....	1.600
Alkalinity.....	
Brix.....	15.200
Sucrose.....	12.000
Glucose.....	1.590
Solids not sugar.....	2.120
Purity.....	76.420
Glucose ratio.....	13.250
Proteids.....	.437
Albuminoids.....	.116
Amids.....	.321
Alcoholic precipitate.....	.267
Gums.....	.126
Ash in alcoholic precipitate.....	17.050
Albuminoids in alcoholic precipitate.....	37.060

Clarified Juice.

Acidity.....	
Alkalinity.....	1.500
Brix.....	15.100
Sucrose.....	12.000
Glucose.....	1.470
Solids not sugar.....	2.100
Purity.....	77.070
Glucose ratio.....	12.250
Proteids.....	.329
Albuminoids.....	.043
Amids.....	.286
Alcoholic precipitate.....	.322
Gums.....	.236
Ash in alcoholic precipitate.....	13.990
Albuminoids in alcoholic precipitate.....	13.810

By increasing the alkalinity there still remains a slight increase in purity; the "solids not sugar" remain the same, the action of the excess of lime on the glucose and amids forming the same quantity of impurities as that removed. The glucose decreases .12, this quantity being converted into organic acids, 24.6 per cent. of the proteids were removed and consisted of albuminoids and amids, the latter being decomposed by the excess of lime. There is an increase of 20.6 per cent. in the alcoholic precipitate and 87.3 per cent. of the gums, caused by the organic acids formed by the action of the excess of lime.

EXPERIMENT V.

Juice limed to 3.3 cubic centimeters alkalinity, the acidity before liming being 1.9 cubic centimeters, .1953 ounces of lime added per gallon of juice.

Mill Juice.

Acidity.....	1.900
Alkalinity.....	
Brix.....	14.290
Sucrose.....	12.000
Glucose.....	1.540
Solids not sugar.....	0.740
Purity.....	84.030
Glucose ratio.....	12.530
Proteids.....	.133
Albuminoids.....	.066
Amids.....	.067
Alcoholic precipitate.....	.172
Gums.....	.046
Ash in alcoholic precipitate.....	36.820
Albuminoids in alcoholic precipitate.....	39.000

Clarified Juice.

Acidity.....	
Alkalinity.....	3.300
Brix.....	14.370
Sucrose.....	12.000
Glucose.....	1.210
Solids not sugar.....	1.160
Purity.....	83.510
Glucose ratio.....	10.080
Proteids.....	.084
Albuminoids.....	.017
Amids.....	.067
Alcoholic precipitate.....	.212
Gums.....	.107
Ash in alcoholic precipitate.....	46.340
Albuminoids in alcoholic precipitate.....	3.120

By a further increase in alkalinity over experiment four, there is a decrease of .52 in the purity and an increase of .42 in the solids not sugar, a destruction of 21.4 per cent. of the glucose and a corresponding decrease in the glucose ratio. The increase of 5.68 per cent. in the solids not sugar, notwithstanding the removal of 37 per cent. of proteids, shows the deleterious results of excessive liming.

The amids remain the same, but this does not indicate that none of them were converted to organic acids, as strong alkalinity decomposes the albuminoids into amids and ammonia, and the amount of decomposed albuminoids in this instance left enough amids unchanged to be equal to those decomposed by the lime. The gums increase 137 per cent., while that of the alcoholic precipitate is 23 per cent. The large increase in the gums is due to the organic acids formed by the action of the excess of lime, and the comparatively small increase in the alcohol precipitate is due largely to the removal of the albuminoids from the juice; the albuminoids in the alcohol precipitate of the mill juice being 39 per cent., while those in the alcoholic precipitate of the clarified juice were only 3.12 per cent.

These experiments show conclusively that an excess of lime decomposes the glucose and amids to a considerable extent and forms acids of a gummy character, and when the lime is largely in excess the amount of these acids formed is sufficient to increase the gums over 100 per cent., thus more than doubling the amount of the most objectionable impurities in the juice, and at the same time darkening the juice by their presence. Besides this, which of itself is sufficient to condemn liming to alkalinity, the excess of lime acts upon the

albuminoids, which are largely removed by heat alone, though aided by the addition of lime, converting them into amids, which remain in the juice and then further acting on these amids, decomposing them into organic acids and ammonia, the results of both actions bring back into solution impurities that have been removed and is decidedly disastrous in sugar manufacture.

By leaving the juice slightly acid there was no addition of impurities, but the amount removed was not as great as those in the neutral clarification. The gums, of which a larger quantity is removed in the acid clarification given here than in the neutral clarification, were undoubtedly those obtained from the cane by light pressure in the neutral clarification, lime not acting on these as strongly as on those removed by increasing the pressure.

The best method to clarify with lime alone is to add lime either to neutrality or slight acidity.

THE AMOUNTS OF IMPURITIES EXTRACTED BY INCREASING THE PRESSURE ON THE CANE.

In studying these impurities the juice from each set of mills in a nine-roller mill at the station was collected and analyzed, and in order to arrive at the character of these impurities the juices were clarified by liming to practically neutrality and the action of lime noted. The amount of juice extracted by each mill was determined and in the experiment here alluded to the total extraction was 77.2 per cent., of which the first mill extracted 50.5 per cent., the second mill 23.9 per cent. and the third mill 2.8 per cent.

Clarified Juice of First Mill.

Acidity.....	100
Total solids.....	13.390
Brix.....	13.770
Sucrose.....	12.000
Glucose.....	1.030
Solids not sugar.....	.740
Purity.....	87.150
Glucose ratio.....	8.580
Ash.....	.271
Proteids.....	.057
Albuminoids.....	.014
Amids.....	.043
Alcoholic precipitate.....	.061
Gums.....	.049
Ash in alcoholic precipitate.....	3.850
Albuminoids in alcoholic precipitate.....	15.810

First Mill Juice, 50.5 Per Cent. Extraction.

Acidity.....	1.650
Total solids.....	13.940
Brix.....	14.050
Sucrose.....	12.000
Glucose.....	1.060
Solids not sugar.....	.990
Purity.....	85.410
Glucose ratio.....	8.830
Ash.....	.312
Proteids.....	.104
Albuminoids.....	.051
Amids.....	.053
Alcoholic precipitate.....	.226
Gums.....	.147
Ash in alcoholic precipitate.....	14.670
Albuminoids in alcoholic precipitate.....	19.810

Second Mill Juice, 20.9 Per Cent. Extraction.

Acidity.....	2.200
Total solids.....	14.720
Brix.....	15.000
Sucrose.....	12.000
Glucose.....	.830

Solids not sugar.....	2.170
Purity.....	80.000
Glucose ratio.....	6.920
Ash.....	.493
Proteids.....	.317
Albuminoids.....	.186
Amids.....	.131
Alcoholic precipitate.....	.745
Gums.....	.469
Ash in alcoholic precipitate.....	15.720
Albuminoids in alcoholic precipitate.....	21.370

Clarified Juice of Second Mill.

Acidity.....	.050
Total solids.....	13.820
Brix.....	14.310
Sucrose.....	12.000
Glucose.....	.850
Solids not sugar.....	1.460
Purity.....	83.840
Glucose ratio.....	7.080
Ash.....	.453
Proteids.....	.173
Albuminoids.....	.029
Amids.....	.144
Alcoholic precipitate.....	.155
Gums.....	.107
Ash in alcoholic precipitate.....	15.320
Albuminoids in alcoholic precipitate.....	15.680

Third Mill Juice, 2.8 Per Cent. Extraction.

Acidity.....	2.450
Total solids.....	16.160
Brix.....	16.460
Sucrose.....	12.000
Glucose.....	1.120
Solids not sugar.....	3.340
Purity.....	72.910
Glucose ratio.....	9.330
Ash.....	.669
Proteids.....	.444
Albuminoids.....	.278
Amids.....	.166
Alcoholic precipitate.....	1.359
Gums.....	.885
Ash in alcoholic precipitate.....	17.600
Albuminoids in alcoholic precipitate.....	17.250

Clarified Juice of Third Mill.

Acidity.....	100
Total solids.....	14.760
Brix.....	14.850
Sucrose.....	12.000
Glucose.....	1.040
Solids not sugar.....	1.810
Purity.....	80.810
Glucose ratio.....	8.670
Ash.....	.508
Proteids.....	.234
Albuminoids.....	.066
Amids.....	.168
Alcoholic precipitate.....	.205
Gums.....	.132
Ash in alcoholic precipitate.....	119.050
Albuminoids in alcoholic precipitate.....	16.200

The acidity of the juice increases as the total extraction increases, the juice from first mill having an acidity of 1.65 cubic centimeters, from the second mill 2.20 and from the third mill 2.45 cubic centimeters. The juices are calculated to the same sucrose content, and show a decrease in purity with an increase in extraction, and a corresponding rise in the solids not sugar and total solids; the purity of the first mill being 85.41, of the second mill 80.00, and of the third mill 72.91. The ash, proteids, albuminoids, amids and gums also increase with the increase in extraction, the ash being .312, .493 and .669 per cent. in the first, second and third mill juice respectively; the albuminoids and amids, which constitute the proteids, showing a like increase. The gums show the most marked increase, being .147 per cent. in the first mill, .469 per cent. in the second mill and

.885 per cent. in the third mill. The total impurities increase considerably with the increased extraction, the second and third mill juices having 3.84 and 7.90 per cent. of solids not sugar, while the juice of the first mill has only 1.74 per cent.

Lime removes most of these impurities, particularly those from the juices of the second and third mills; the ash removed by lime being 18.1 per cent. from the first mill, 8.1 per cent. from the second mill and 24.1 per cent. from the third mill juice. Proteids removed were 45.2 per cent. from first, 45.1 per cent. from second and 47.2 per cent. from third mill, and the gums removed were 66.7 per cent. from first, 77.2 per cent. from second and 85.1 per cent. from third mill.

Thus showing that while the amounts of impurities are greater with an increased extraction, lime removes a larger percentage of these impurities from the juices containing them in larger quantities than it does from the purer juices of less extraction, and this action is particularly marked in the case of the gums. The ash of the second mill seems to have been composed almost entirely of potash and soda compounds, and was very slightly affected by lime.

EXPERIMENTS ON THE ACTION OF SULPHUR AND LIME ON CANE JUICE.

In testing this action the juice was sampled before and after each step in the process and carefully analyzed.

The experiments are divided into three classes:

1. Sulphur followed by lime.
2. Lime followed by sulphur.
3. Sulphur followed by lime and resulphured, or double sulphuring.

SULPHUR FOLLOWED BY LIME.

EXPERIMENT I.

The mill juice had an acidity of 2.4 cubic centimeters, and was sulphured to a total acidity of 5.5 cubic centimeters, using sulphur sufficient to increase the acidity 3.1 cubic centimeters, requiring .0665 ounce of sulphur dioxide to sulphur one gallon of juice. Lime was added till the juice was left .5 cubic centimeter acidity, using .1878 ounce of lime per gallon, and having an acidity equivalent to .0107 of sulphur dioxide per gallon.

Mill Juice.

Acidity.....	2.400
Brix.....	15.850
Sucrose.....	12.000
Glucose.....	2.400
Solids not sugar.....	1.450
Purity.....	75.710
Glucose ratio.....	20.000
Proteids.....	.127
Albuminoids.....	.062
Amids.....	.065
Alcoholic precipitate.....	.212
Gums.....	.128
Ash in alcoholic precipitate.....	23.600
Albuminoids in alcoholic precipitate.....	16.620

Clarified Juice.

Acidity.....	.500
Brix.....	15.830
Sucrose.....	12.000
Glucose.....	2.430
Solids not sugar.....	1.400
Purity.....	75.810
Glucose ratio.....	20.250

Proteids	.077
Albuminoids	.017
Amids	.061
Alcoholic precipitate	.245
Gums	.156
Ash in alcoholic precipitate	35.600
Albuminoids in alcoholic precipitate	.750

There is a very slight increase in purity, and considering analytical errors it is practically the same in the clarified as that in the mill juice. There were 39.4 per cent. of the proteids removed and consisted entirely of albuminoids, an increase in the gums of 21.7 per cent. This is surprising and can only be accounted for by the precipitation of sulphites of lime by alcohol; these, and particularly the acid or bisulphites are decomposed by heat and some of the sulphur volatilized. This undoubtedly occurred in the estimation of the ash in the alcohol precipitate and increased the amount of gums, which is obtained by difference.

EXPERIMENT II.

Juice sulphured to a total acidity of 6.0 cubic centimeters and limed to .1 cubic centimeter alkalinity, using .0955 ounce of sulphur dioxide and .2290 ounce of lime per gallon of juice.

Mill Juice.

Acidity	1.550
Alkalinity	
Brix	14.320
Sucrose	12.000
Glucose	1.510
Solids not sugar	.810
Purity	83.790
Glucose ratio	12.580
Proteids	.121
Albuminoids	.062
Amids	.069
Alcoholic precipitate	.176
Gums	.053
Ash in alcoholic precipitate	34.450
Albuminoids in alcoholic precipitate	25.690

Clarified Juice.

Acidity	
Alkalinity	.100
Brix	14.310
Sucrose	12.000
Glucose	1.530
Solids not sugar	.780
Purity	83.860
Glucose ratio	12.750
Proteids	.061
Albuminoids	.007
Amids	.054
Alcoholic precipitate	.062
Gums	.043
Ash in alcoholic precipitate	28.790
Albuminoids in alcoholic precipitate	.700

The sugars and solids not sugar remain unchanged. 50. per cent. of the proteids were removed and practically all of the albuminoids, there remaining only .007 per cent. in the juice. 18.8 per cent. of the gums were removed; this amount is less than actually removed owing to the presence of sulphite in the juice and their volatilization on heating as explained in Experiment I.

EXPERIMENT III.

Juice sulphured to a total acidity of ten cubic centimeters and lime added till acidity was reduced to 1.0 cubic centimeter, using .1803 ounce of sulphur and .3379 ounce of lime per gallon of juice.

<i>Mill Juice</i>	
Acidity	1.600
Total solids	15.170
Brix	15.820
Sucrose	12.000
Glucose	2.000
Solids not sugar	1.830
Purity	75.920
Glucose ratio	16.660
Sulphurous acid	
Sulphuric acid	
Lime	
Ash	.578
Proteids	.269
Albuminoids	.126
Amids	.143
Alcoholic precipitate	.270
Gums	.156
Ash in alcoholic precipitate	8.020
Albuminoids in alcoholic precipitate	35.120
Lime in alcoholic precipitate	1.250

Clarified Juice.

Acidity	1.000
Total solids	15.320
Brix	15.550
Sucrose	12.000
Glucose	2.020
Solids not sugar	1.530
Purity	77.170
Glucose ratio	16.840
Sulphurous acid	.071
Sulphuric acid	.095
Lime	.168
Ash	.403
Proteids	.174
Albuminoids	.026
Amids	.148
Alcoholic precipitate	.057
Gums	.057
Ash in alcoholic precipitate	5.790
Albuminoids in alcoholic precipitate	5.940
Lime in alcoholic precipitate	1.730

There is an increase in purity of 1.25 and a corresponding decrease in solids not sugar; there was no inversion, the glucose remaining in the same ratio to the sucrose; 30.2 per cent. of the ash was removed; 31.6 per cent. of the proteids, consisting entirely of albuminoids and 67.3 per cent. of the gums were removed.

EXPERIMENT IV.

Juice sulphured to 10 cubic centimeters acidity and limed to neutrality, the mill juice having an acidity of 1.6 cubic centimeters, using .1803 ounce of sulphur and .3755 ounce of lime per gallon of juice.

Mill Juice.

Total solids	14.380
Brix	15.120
Sucrose	12.000
Glucose	1.440
Solids not sugar	1.680
Purity	79.360
Glucose ratio	12.000
Sulphurous acid	
Sulphuric acid	
Lime	
Ash	.596
Proteids	.218
Albuminoids	.100
Amids	.118
Alcoholic precipitate	.334
Gums	.227
Ash in alcoholic precipitate	8.000
Albuminoids in alcoholic precipitate	25.190
Lime in alcoholic precipitate	1.780

Clarified Juice.

Total solids	14.190
Brix	14.830
Sucrose	12.000
Glucose	1.380
Solids not sugar	1.450
Purity	80.920

Glucose ratio	11.500
Sulphurous acid	.058
Sulphuric acid	.049
Lime	.048
Ash	.206
Proteids	.184
Albuminoids	.015
Amids	.119
Alcoholic precipitate	.037
Gums	.032
Ash in alcoholic precipitate	3.140
Albuminoids in alcoholic precipitate	11.250
Lime in alcoholic precipitate	1.020

There is an increase of 1.56 and the sugars have not been affected. 6.56 per cent. of the ash is removed, 38.5 per cent. of the proteids, consisting entirely of albuminoids, the amids were not affected, and 85.9 per cent. of the gums were removed; this clarification removing more impurities than any other clarification in the experiments.

EXPERIMENT V.

Juice sulphured to 10.0 cubic centimeters acidity and lime added till it was 1.0 cubic centimeters alkalinity.

Mill Juice.

Total solids	15.230
Brix	15.610
Sucrose	12.000
Glucose	1.740
Solids not sugar	1.870
Purity	76.870
Glucose ratio	14.500
Sulphurous acid	
Sulphuric acid	
Lime	
Ash	.461
Proteids	.386
Albuminoids	.133
Amids	.235
Alcoholic precipitate	.371
Gums	.185
Ash in alcoholic precipitate	22.860
Albuminoids in alcoholic precipitate	28.330
Lime in alcoholic precipitate	1.830

Clarified Juice.

Total solids	15.090
Brix	15.400
Sucrose	12.000
Glucose	1.680
Solids not sugar	1.770
Purity	77.920
Glucose ratio	13.590
Sulphurous acid	.046
Sulphuric acid	.028
Lime	.052
Ash	.541
Proteids	.286
Albuminoids	.033
Amids	.253
Alcoholic precipitate	.058
Gums	.044
Ash in alcoholic precipitate	12.280
Albuminoids in alcoholic precipitate	12.060
Lime in alcoholic precipitate	9.710

There is an increase in purity of 1.05, with a corresponding decrease in the solids. The solids not sugar do not show as great a decrease, owing to the excess of lime decomposing .11 per cent. of the glucose. The ash increases 17.4 per cent., 22.3 per cent. of the proteids were removed and consisted entirely of albuminoids. The amids are increased slightly by the decomposition of the albuminoids, but this action was very small, the increase being only 7.6 per cent.; 76.2 per cent. of the gums were removed, thus showing that the lime was not present in very large excess.

EXPERIMENT VI.

Juice sulphured to 10 cubic centimeters acidity and limed to 2 cubic centimeters alkalinity.

Mill Juice.

Total solids	12.280
Brix	15.400
Sucrose	12.000
Glucose	1.740
Solids not sugar	1.870
Purity	76.890
Glucose ratio	14.500
Sulphurous acid	
Sulphuric acid	
Lime	
Ash	.461
Proteids	.368
Albuminoids	.133
Amids	.235
Alcoholic precipitate	.371
Gums	.185
Ash in alcoholic precipitate	22.860
Albuminoids in alcoholic precipitate	28.330
Lime in alcoholic precipitate	1.830

Clarified Juice.

Total solids	15.280
Brix	15.690
Sucrose	12.000
Glucose	1.710
Solids not sugar	1.980
Purity	76.480
Glucose ratio	14.250
Sulphurous acid	.065
Lime	.314
Ash	.469
Proteids	.268
Albuminoids	.039
Amids	.227
Alcoholic precipitate	.068
Gums	.057
Ash in alcoholic precipitate	25.500
Albuminoids in alcoholic precipitate	8.250
Lime in alcoholic precipitate	20.100

As was expected from results on lime clarifications, we have here with a strong alkalinity a decrease in purity. The glucose was not affected, showing that the action of the excess of lime was not as strong as in the lime clarifications. There is a slight increase in the ash, but not as much as found in using lime alone to strong alkalinity. 27.7 per cent. of the proteids were removed and consisted largely of albuminoids; the excess of lime decomposed only a small quantity of amids; 69.2 per cent. of the gums were removed. The removal of this quantity in a strong alkaline juice, without the addition of organic acids formed by the action of the excess of lime on the glucose, albuminoids and amids, shows that in sulphured juices an excess of lime is not as injurious as in juices that have not been sulphured.

The experiments using lime first and following with sulphur, and those of double sulphuration, with the removal of the impurities precipitated by each step in the process, do not show any advantage in the quantity of impurities removed over those precipitated by the use of sulphur and lime, and will not be further discussed.

These results show that sulphuring highly and liming to neutrality removes more impurities than any degree of liming combined with sulphuring, and if precautions are taken to prevent the heating of the juice before liming no inversion takes place.

Comparing the impurities removed by sulphuring to ten cubic centimeters acidity, the

mill juice having an acidity of 1.5 cubic centimeters, and liming to neutrality, using .1824 ounce of sulphur dioxide or .0912 ounce of sulphur per gallon, and liming to neutrality, requiring .3755 ounce of lime per gallon, with that of liming to neutrality, the mill juice having an acidity of 1.8 cubic centimeters and requiring .068 ounce of lime per gallon of juice, there is an increase in the rise in purity from 1.33 in limed to 1.56 in the sulphured and limed juice; the same percentage of albuminoids were removed by each method, and a great increase in the amount of removed noted in the sulphur and lime clarification, 85.9 per cent. of gums, while the liming without the use of sulphur removed only 18 per cent. of gums.

Besides the above the following actions were observed:

1. The greater the density of the juice the less absorption of sulphur dioxide.

2. Leaving the clarified juice acid, increases the sulphurous and sulphuric acid remaining in the juice, either in combination with lime or free.

3. Neutral clarifications leave less lime, sulphurous acid, sulphuric acid, ash and gums in the clarified juice.

4. Acid and alkaline clarifications increase the amount of lime remaining in the juice.

5. Albuminoids are less affected by differences in method of clarification than other impurities, but more are removed by neutral than by acid or alkaline clarifications.

6. Amids are not removed by any process of clarification, but are increased by alkaline clarifications and in some cases are decomposed.

Thus sulphuring to strong acidity and liming to neutrality is the best method of clarifying cane juice, and in summarizing the results and precautions necessary to prevent inversion, the best procedure in the clarification of cane juice is to sulphur the juice strongly before running in the clarifiers, observing precautions to prevent the juice being heated, liming in the clarifiers to neutrality, which can be determined by litmus paper, or by the use of a tenth normal acid or alkali solution, with phenol phthalein as an indicator; the latter is a more delicate test than litmus and is preferable. Heating until the blanket breaks, and either remove the scums and allow the juice to settle, or allow it to settle without the removal of the scums, run off the clear juice into the juice tanks and pass scums and settlings through the filter press, or if possible filter the juice after settling, as it is practically impossible to remove all of the impurities that are precipitated by settling.

The Use of Lime and Sulphur in Sugar House Work.

[A paper by Mr. E. W. Deming, read before the Louisiana Sugar Planters' Association June 9, 1898.]

MR. PRESIDENT AND GENTLEMEN—At the request of your secretary I would beg leave to present the following paper on the subject of the "Use of Lime and Sulphur in Sugar House Work."

In some ancient work on the manufacture of

sugar in the East Indies there is stated the fact that in the manufacture of sugar from saccharine juices there was used in the solution the juice of plants known to have alkaline properties, which was applied before or during evaporation.

Thus we see that with the most primitive methods of manufacture, lime, or its equivalent, was used on juices extracted from the stalks by the use of heavy pestles, or by the use of two wooden rollers or two stone rollers operated by men working long handles attached directly to these rollers.

I am not aware that at any time or in any locality there has been sugar manufactured on a large scale without the use of an alkaline property for the coagulation of the organic matter found in saccharine solutions. At the present time sugar producing sections of the world employ lime, with the addition of heat, for the coagulation of the impurities in saccharine solutions, and I am not aware that there has as yet been found a substitute for the use of lime or any material that promises better results than by the use of lime. We are, therefore, settled upon the one point—that is, the necessity for the use of lime; the next point to determine is the proper application of lime.

The preparation of lime for application to saccharine solutions should be most carefully done. Only the best grade of lime should be used. This should be slacked entirely under water, and reduced down by the use of water to 15 or 18 Baumé actually, by the use of a Baumé spindle. This solution of lime water should then pass through wire cloth of one-eighth inch mesh, which prevents any lumps of unslacked lime reaching the tank, from which it is taken to the liming tanks or clarifiers. These latter receptacles should be supplied with some form of agitator to prevent the lime settling on the bottom, and to insure that the application of a known quantity of this solution to a cane juice would represent a certain effect would materially aid the man whose duty it was to apply the lime to the juice.

The most usual process for the treatment of cane juice to secure separation of the impurities is by the use of open vessels containing steam heating pipes at their bottoms. Into these tanks is drawn the cane juice up to within a few inches of the top, and the necessary lime for this quantity of juice is applied. Occasionally this juice is not heated until after the application of this lime, but more frequently steam is turned on as soon as the heating coils are covered, in which case there is chance for a considerable loss of sugar by inversion if the lime is not applied before any considerable amount of heat is obtained.

Some clarifiers apply the entire charge of lime to these tanks as soon as the coils are covered. While this precludes any chance of inversion through heating an acid juice, it works an injurious effect by using an excess of lime to this juice, the bad effects of which can not be removed even by the addition of sufficient juice to take up this lime. Another bad effect of this practice is that the heavier particles of lime are not immediately absorbed by the juice and fall to the bottom of these tanks

beneath the heating coils, from which point it is difficult to unite the heavier parts of lime with the juice, because there is no circulation beneath the heating coils, therefore much lime which is designed for the juice in this clarifier never reaches the juice and passes out with the sediment to the filter press mud tanks, where the application of additional heat in blow-ups and the pump's action in handling the skimmings to the presses, combined with the circulation of the juice through a certain part of the filter press cake, absorbs this portion of undissolved lime to the great injury of the juice coming from the filter presses, greatly darkening the color; and if mixed with the settled juice coming from clarifiers which contains a less quantity of lime there will be caused a very perceptible flocculation and precipitation due to a juice that is heavily limed neutralizing certain acids in juice that has less lime. This causes a precipitation in the charging tank of the evaporators amounting in some cases to several inches of sediment in a few hours' run, making it necessary to employ a duplicate tank at this point for the purpose of removing this sediment from the bottom.

Another and better mode of applying lime to these small open clarifiers would be to apply it gradually, making two or three applications during the filling of these clarifiers, adding the last portion of lime immediately after closing the inlet valve. It would be greatly to the benefit of the clarification if heat was not applied until the clarifiers had been well filled and all the lime added. This, of course, would delay operations in a house where the clarifying capacity was limited, but it would certainly be the best practice.

The slow heating of cane juice in open clarifiers causes an imperfect coagulation of the impurities, some flocculations being small and held in suspension; others unite with particles of air, which carry them to the surface when all would be precipitated to the bottom if the juice were instantaneously heated to its maximum temperature.

In the writer's opinion it is extremely difficult to secure a uniform clarification or tempering of the juice when operated upon in small quantities, as in open clarifiers. It is true you may secure a good clarification with each clarifier, presumably by the application of the same amount of lime with the same amount of juice, provided there is no change in the character of juice, which unfortunately is the exception rather than the rule.

While the juice in each individual clarifier settles and appears to be free from all impurities, in fact, all that is desired from the standpoint of clarification, it must be admitted that in the clarification in these vessels no two are precisely alike, and if they could be carried through the house each one independent of the others, satisfactory results might be obtained, but at some point these individual clarifications must come together and form the whole. It is here that is shown the disadvantage in the tempering of cane juice in small quantities.

The juices of these several clarifiers must meet in charging tanks of the evaporators, where there will occur a second clarification,

due to the varying condition of the juices in the different clarifiers as respects the acid and alkaline properties, which will certainly cause a precipitation when they meet; this precipitation in extent will depend upon the extent of the varying condition of the juices meeting in this tank, which may throw down a heavy precipitate or cause a separation of minute particles of specific gravity so nearly equal that of the juice that it is carried on into the evaporators, which it enters with a slightly opaque or cloudy appearance.

Cane juices are limed in large bulk, first being drawn into tanks containing from six to eight feet depth of juice. An agitator should be provided for these tanks by the use of air discharged through perforated pipe directly on the bottom or some mechanical device that would cause a movement of the mixture through every part of the vessel in which the lime is applied.

As soon as the stirring apparatus is covered there should be applied a movement for the mixture of the cane juice which should not cease until the tank was again empty.

Into this tank is applied the lime at intervals as the tank fills, making the final application after the inlet valve was closed. If the lime has the proper mixture of water reduced to 15 or 20 Baumé, it will instantly unite with the juice, leaving no portion upon the bottom of these tanks. The agitator will insure a thorough mixture and prevent settling of the mud or heavy parts, which are disposed to settle in the bottom of receptacles holding raw cane juice and insure that each gallon of juice passing onward through the process of clarification will carry with it the mud or precipitate which belongs to that gallon of juice. This is of decided advantage, as the heavier mud assists materially in carrying down the fine flocculations which in themselves are so difficult to remove by settling from the cane juice.

By the application of lime to large quantities of cane juice in this manner sufficient time is given for a careful tempering of each tank of juice, and where used in connection with the Deming system of clarification but one-thirtieth of this tank need be heated before the maximum effect of reagents and the heat may be observed, after which, if necessary, the twenty-nine-thirtieths may have an additional amount of lime added should the juice be deficient in lime or an increased quantity added or what may be better practice to add a small quantity of clariphos to counteract an excess of lime should the tank have an excess of lime.

Another argument in favor of the application of lime to cold juice is the fact that it is much more readily taken up by cold juices than hot juices and that a less quantity of lime when applied cold will secure the desired reaction than if applied to a hot solution. The truth of this assertion is very evident in the use of the Deming system of clarification and is confirmed by the use of the Steffen process for securing sugar from molasses. In this process to secure a sucrate of lime it is necessary to use a refrigerating process reducing the temperature of the molasses to which lime has been applied to a very low point.

Equally important as the application of lime

is the process of separating the impurities that will be precipitated in the juice by the application of lime and heat. The usual practice is to permit the solution after receiving the necessary reagent and its maximum heat to remain at rest in the clarifiers for a short time. The surface scums are then removed and the clear juice drawn off, and later the scums that are at the bottom of these vessels. There is no distinct line marking the separation of the clear juice and the impurities so to avoid carrying too much juice to the filter presses with the precipitate there is likely to be carried out considerable mud with the clear juice, some of which may be separated from the juice in the charging tank of the evaporator and some will pass on through the evaporator into the syrup.

The difficulty of maintaining tight check valves and steam valves which admit steam into the open clarifiers during the time for settling causes continued upward movement of heat radiating from the surface, which keeps in movement and prevents settling some of the impurities.

By the use of the Deming system of continuous settling tanks the mud or precipitate is discharged into the bottom of these settlers, where it remains until removed, the clear juice constantly overflowing at the upper and opposite ends from which is removed the mud. In these tanks there is really no settling, no settling is required, merely the mud remains at the bottom while the clear juice rises upward and overflows.

I consider as impractical the use of litmus paper or other reagents used for disclosing the acidity of cane juice after the application of lime in order to secure a uniform condition as regards its acidity, this condition can be more accurately determined after the juices have had their application of reagents and its maximum heat than by any system of titration.

In the application of sulphur to cane juices there are almost as many machines for this purpose as there are sugar houses employing them, and the conflicting opinions in regard to the proper methods of applying sulphur and as to the quantity to be used are nearly as numerous as the people who profess any knowledge of the use of sulphur.

We are greatly in need of more definite information in regard to the application and effects of sulphur. The fact that one house uses sulphur in large quantities and another house in moderate quantities and both obtain in the barrel results very similar as regards quality and quantity of products does not argue that either or both of these systems are right; neither does the fact of the success of two houses like the above necessarily warrant a house in a location at any great distance from the above places to adopt a similar sulphur process. A difference in the soil producing the cane, a difference in degree of extraction or many other conditions peculiar to individual houses may affect in a great measure the action of sulphur.

There are a few houses in this State which use what might be termed an excess of sulphur—that is, two or three pounds of sulphur per ton of cane per day; this applies to

an apparatus that insures its entire absorption by the juice. The use of sulphur to this extent increases the amounts of lime required to neutralize the acids placed in the juice by the sulphur.

Ordinarily, less than one-half pound of sulphur per ton of cane is used, but few houses are fitted with sulphur apparatus that will give to exceed one pound of sulphur per ton of cane handled each day with a certainty that it all passes directly into the juice.

Some large houses handling large quantities of cane apply sulphur by means of perforated pipes in the bottom of the deep tanks containing the cane juice, the necessary pressure being obtained by an air pump which forces air into the closed receptacles in which the sulphur is being burned.

It is my impression that in nearly all sulphur burners the high heat generated where they undertake to burn too great a quantity of sulphur on a small burning surface carries into the pipes and into the juice large quantities of melted sulphur which is not burned but melted.

This sublimed sulphur carries with it sufficient heat to injure valves and connections, effectually fills up and destroys piping, and may be seen escaping from the surface of the juice as a heavy white cloud, lacking a sulphur smell.

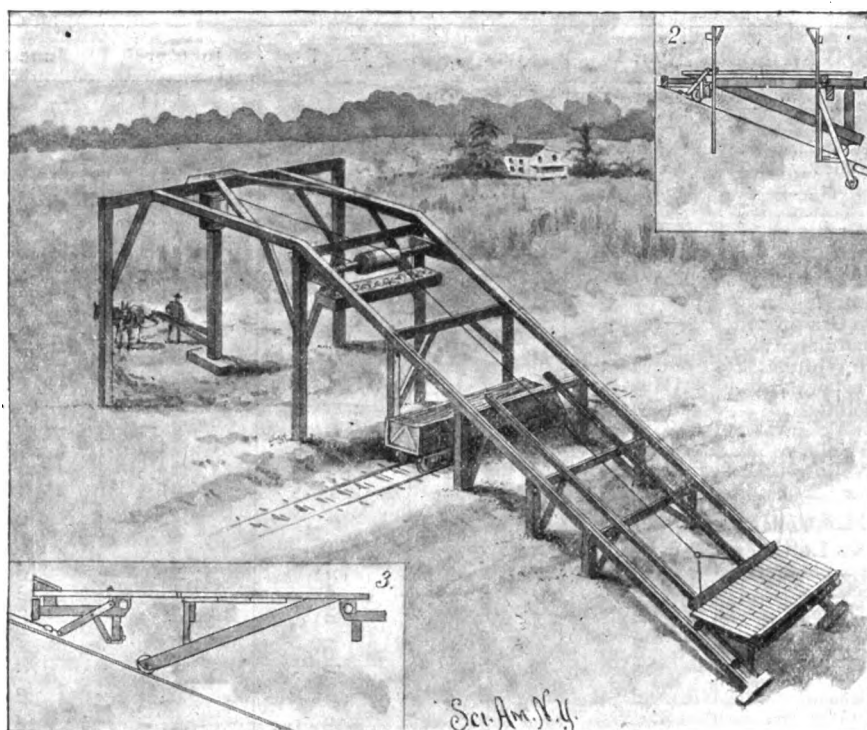
Cane Transfers.

Necessity is the mother of invention and the low prices of sugar during recent years, and the increase of cane farming and its transportation long distances in cars, together with the necessity for diminished expense in hauling cane about the sugar-house carrier, have led to the adoption of various devices for the easy transfer of sugar cane from loaded carts to cane cars ready for long transit or for easy discharge at the cane carrier.

LeBlanc & Nadler's trolley system, the derrick system of Mr. James Mallon and the American Hoist and Derrick Company, the Lorio transfer, the Kemper moving platform and the Spelman hoist are all excellent efforts and have effected wonderful economies where used.

In this issue we illustrate another device now offered to the cane-growing world, that of Mr. E. W. Wiley, Jr., of Lecompte, La. Mr. Wiley lives right in the midst of the cane fields of the Red River valley, where immense quantities are transferred from carts to cars, and his invention is the result of large experience and a study of the many devices now in use, all of which Mr. Wiley thinks he surpasses with his in ease, excellence and economy of work.

As will be seen by the illustration no ropes or slings are required in Mr. Wiley's apparatus. The loaded cart is driven onto a flat platform on the ground level, and dumped thereon. Beneath this platform there begins an inclined track, which leads up from the ground at an angle of 30 to 40 degrees, and by proper rollers or wheels the platform with its load is easily drawn up the incline, the surface of the platform remaining level. The ascending load is thus brought directly over the empty cars to be loaded, and by an ingenious device



the whole load is instantly and automatically dumped into the waiting car. The loaded car is then shoved out of the way to make place for the next empty car.

The dumping device is a leading feature in the invention. The floor of the transferring platform is composed of two trap doors with automatic traps and automatic shutting devices operated by trip wheels running on a shorter intermediate track, which will be seen in the illustration. This is made of sufficient length to allow the trap doors to dump the load of cane at just the right point to fall into the car below. When the platform descends, the trip wheels coming onto their own track close the trap doors, and when the platform reaches the bottom of the incline, it is ready to receive another load.

As will be seen by the illustrations the lifting power is applied by a simple and economical device. A wire rope is led from the platform of the incline, passing over a friction roller to a perpendicular shaft, on the top of which is a winding barrel and to the bottom of which one or two mules may be attached by a lever, the diameter of the winding barrel above and the length of the pulling lever below determining the power and speed to be used. With a small winding barrel, but little power will be needed, even for heavy loads, but the work will be slower; a large winding barrel will quicken the work and require more power.

In the illustration the small cuts 2 and 3 show the dumping bottom open and again closed by the descent of the platform. Mr. E. W. Wiley, Jr., whose address is Lecompte, La., will be glad to give further particulars, and his advertisement will be found in our columns.

Trade Notes.

Plantation Wanted.—Elsewhere in this issue we print the advertisement of a gentle-

man who desires to purchase a medium-sized sugar plantation. The place must be well equipped, especially as regards sugar house. Here is an opportunity for those of our planting friends who desire for any reason to dispose of their places, as the prospective purchaser means business. Replies should be addressed to "Business," care this office.

Mr. L. F. Suthon, of Houma, was at the St. Charles on Wednesday.

Mr. W. E. Howell, of Lafourche parish, sugar planter, legislator and genial gentleman, was a recent visitor to town, stopping at Colonel Blakeley's hostelry.

Mr. J. A. Pharr, son of Capt. J. N. Pharr, was in the city during the past week.

Mr. Walter I. Barton, of Ascension parish, where he has extensive sugar planting interests, was a visitor to the city on Tuesday and stopped at the St. Charles.

Mr. C. W. Bocage, of Houma, La., was registered at the Hotel Royal during the past week.

Mr. T. H. Roger, of Thibodaux, was in the city on a visit a few days ago.

Mr. G. D. Von Phul, of Baton Rouge, was registered at the Commercial Hotel on Monday.

Mr. O. M. Stimson, general superintendent of the Southern shops of the Illinois Car and Equipment Company, at Anniston, Ala., was in the city during the past week. Mr. Stimson's immense concern is represented here at the local office of the Anniston Lime and Stone Company, over the Union National Bank, and he reports that the outlook for a big business with the sugar planters is very bright. The Illinois Car and Equipment Company is prepared to make very nearly everything required about a sugar house, as will be more fully set forth in an advertisement which they will insert in this journal next week.

JUNE 11.

WEEKLY MARKET REPORT.

1898.

SUGAR.	June 4.	June 6.	June 7.	June 8.	June 9.	June 10.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
Open Kettle.								
Choice	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	8 1/2 @ 3 1/2	Steady.
Strict Prime	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 3	
Prime	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 7/8	
Fully Fair	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Good Fair	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Fair	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Good Common	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Common	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	8 1/2 @ 3 1/2	2 1/2 @ 2 1/2	
Inferior	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	2 1/2 @ 2 1/2	
Centrifugal.								Quiet.
Plant'n Granulated.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Off Granulated.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	8 1/2 @ 3 1/2	
Off White	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —	
Gray White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Choice Yellow	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Prime Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	8 1/2 @ 3 1/2	
Good Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 1/2	
Seconds	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	2 1/2 @ 3 1/2	
MOLASSES.								Easy.
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								Easy.
Fancy	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ —	
Choice	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	12 @ 18	— @ 9	
Strict Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 8	
Good Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 7	
Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 6	
Good Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 5	
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 4	
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ —	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ —	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ —	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Quiet.
Centrifugals, 90	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	4.47 @ —	
Standard A.	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.35 @ —	
Cuba, 90, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	12s. 6d.	12s. 6d.	12s. 6d.	12s. 6d.	12s. 6d.	12s. 6d.	10s. 9d.	Quiet.
A. & G. Beet	9s. 9 1/2 d.	9s. 9 1/2 d.	9s. 9d.	9s. 9 1/2 d.	9s. 9 1/2 d.	9s. 9 1/2 d.	8s. 7 1/2 d.	Quiet.

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	Firm.
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	
Standard Granula'd	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 4 1/2	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	June 1	Tons	381,437
At fourports of Great Britain to.....	May 28	"	81,000
At Havana and Matanzas to.....	June 1	"	88,500

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JUNE 10, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	—	16,685
Sold	—	22,606

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO JUNE 10, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	23,370	1,481,288
Sold	23,370	1,478,407
Received same time last year....	36,832	1,275,587

JUNE 11.

WEEKLY MARKET REPORT.

1898.

RICE.	June 4.	June 6.	June 7.	June 8.	June 9.	June 10.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, 50 bbl.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Dull.
CLEAN, Fancy.....	6 1/4 @ 6 3/4	6 1/4 @ 6 3/4	6 1/4 @ 6 3/4	6 1/4 @ 6 3/4	6 1/4 @ 6 3/4	6 1/4 @ 6 3/4	5 1/4 @ 6	
Choice.....	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 5 1/2	
Prime.....	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	4 1/4 @ 5	
Good.....	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	4 1/4 @ 4 1/2	
Fair.....	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	4 @ 4 1/2	Fair demand.
Ordinary.....	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	3 1/4 @ 3 1/2	
Common.....	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	— @ —	
Inferior.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Nominal.	
No. 2.....	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	
BRAN, 50 ton.....	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	
POLISH, 50 ton.....	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	17 00 @ 18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JUNE 10, 1898.

	SACKS ROUGH.	BELS. CLEAN.
Received.....	1101	—
Sold.....	1069	864

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO JUNE
10, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BELS. CLEAN.
This year.....	468,705	8,081
Last year.....	875,810	9,875

Sugar.

The local sugar market was steady at the end of the week, and receipts from plantations were very good for this season of the year.

Molasses.

No open kettle goods in first hands. Centrifugals easy.

Rice.

Clean rice is steady and rough quiet. The receipts from the country showed an increase at the end of the week, but offerings were too limited to admit of extensive movement.

Sugar in London.

The raw market has become distinctly firmer, and now that the pressure to sell the heavy May tenders has passed off, a steady though perhaps small improvement is generally looked for. It was for the present month that the largest amount of speculation has been indulged in, and it seems unlikely that the market will be again similarly disturbed for some time by reasons of this kind. There are complaints of ungenial weather on the continent, and the sowings of the new beet crop have been retarded, and a continuance of it might perhaps strengthen the market, more particularly for the new crop beet. As regards supplies of actual sugar available for delivery now and in the immediate future, however, there would appear to be sufficient according to stocks on paper, which have become rather stationary according to the latest figures obtainable. No change has taken place in the American markets, either in stocks or values, but the latter are firmly maintained. Cane sugar here has met with rather more attention, some recent arrivals of West Indian muscovado having been rapidly disposed of at prices which must be decidedly more satisfac-

tory to the grower. Crystallized kinds have also met with a better inquiry at prices which only show a fractional decline from the highest point recently established. The imports of crystallized raws to London for the week ending 12th inst. amounted to 886 tons, and for this year to 11,476 tons, against 15,705 tons in 1897.—*P. M. Review, May 14.*

Talmage on the Rice Market.

Rice holds to its former liberal volume and firm prices in spite of the falling away of demand and reaction in values of other grains. Last week brought another big instalment to this market of all sorts and grades, and while the surplus was not large, there is now a fair assortment in way of spot stocks. As previously noted there is a general forecasting of needs and the forehanded are securing the "cream of selections" by engaging in advance of arrivals. Advices from the South note limited and local demand, mainly met by imported sorts. Cables and correspondence from abroad note that all bears have run to cover, no one found willing to sell other than they have and then insisting on full prices with every guard in the matter of terms, proving anew the truth of the old proverb: "Once bitten, twice shy." Some who were caught several times have gone to the other extreme and are now the loudest in predicting the most improbable outcome in way of extravagant prices.

The market appears entirely of one mind and every one disposed to anticipate requirements to a greater or lesser degree. As a natural sequence the demand is brisk, which, with the movement from the far East far below average, keeps the trend of market still upward. So far as can be seen the outlook gives no promise of any recession, for while the prices in India have steadied somewhat, the tonnage is becoming more limited and freights in consequence advancing.

Talmage, New Orleans, telegraphs Louisiana crop movement to date: Receipts, rough, inclusive of amount carried over, 537,725 bags; last year, 569,058 bags; sales, cleaned (estimated), 121,900 barrels; last year, 109,800 barrels. Movement in domestic light and

local; fair inquiry for foreign, spot and to contiguous territory.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 59,470 barrels; sales, 58,980 barrels. Steady but sluggish demand; dealers holding firm in anticipation of enlarged movement.

A Drop in Sugar.

More than 10,000 bags of raw sugar went to the bottom of the East river on Sunday, through the collapse of about 100 feet of the end of the South Third street pier in Williamsburg, N. Y. The pier belonged to the Havemeyer Sugar Refinery. It extended nearly 400 feet out into the river, and was two stories high. During the week 100 men were employed on the pier, but on Sundays the place was closed. Washing away of the sandy bottom of the river is said to have caused the collapse.—*Grocers' Criterion.*

Personal.

Gov. H. C. Warmoth, of the lower coast, was in town on Saturday, and put up at the St. Charles.

Mr. J. K. Tucker, of St. James parish, a man of note in that and other parts of the country, and Mr. J. W. Tucker, of Ascension, technically known as "Jim" Tucker, who is classed as A No. 1 in his business, which is that of managing plantations, were both in the city a few days ago, accompanied by several members of their families, and put up at the Cosmopolitan Hotel.

Capt. J. N. Pharr, of Berwick, was a recent visitor to the city, stopping at the St. Charles.

Mr. L. M. Soniat, of Dorseyville, La., was in the city on Thursday for the purpose of attending the regular monthly meeting of the Louisiana Sugar Planters' Association.

Mr. John Baldwin, Jr., of Total Wreck plantation in the parish of St. Mary, was in the city a few days ago.

Mr. John R. Gheens, the prominent Lafourche parish planter, was a visitor to the city on Monday.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION AS ENGINEER TO DO repairs and take off the crop; am strictly sober, a man of family, and have had long experience; good references. Address P. H. ELLIOTT, 724 Fern street, New Orleans, La. 6-9-98

WANTED—POSITION AS CHEMIST IN BEET or cane sugar house; am 28 years of age, temperate and a hard worker; am competent for the work; modest pay; can furnish Schmidt & Harusch polariscope, if wanted; good reference. Address CHEMIST Box 175, Medicine Lodge, Kas. 6-8-98.

WANTED—BY GENTLEMAN WITH SMALL family, a position as book-keeper and manager in town or country store; thoroughly experienced in office work and general business; best of references, and bond furnished, if required. Address MORTIMER, care The Chief, Donaldsonville, La. 6-10-98

WANTED—A POSITION AS SUGAR MAKER ON a plantation for the coming season; have had long experience with vacuum pan and open kettle sugar; can furnish best references. Address A. FREDERIC, 3412 North Rampart street, New Orleans, La. 6-9-98

WANTED—A COMPETENT, SOBER MAN DE-sires a position as sugar boiler; understands his business; will give first-class reference. Address G., 1137 Dauphine street, New Orleans. 6-7-98

WANTED—A POSITION AS STORE KEEPER, time keeper, or any clerical capacity, by a man of experience, who can furnish both country and city references. Address C. J. A., 1015 Race street, New Orleans. 6-7-98

WANTED—A POSITION AS ASSISTANT engineer, and to do repairing on a sugar plantation, by a man of experience in sugar house and foundry work. Address F. H. F., General Delivery, New Orleans, La. 6-3-98

WANTED—AT ONCE, TWO EXPERIENCED refinery sugar boilers for a refinery in this country. Only those with first-class references will apply to H. F., care LOUISIANA PLANTER. 6-6-98

WANTED—POSITION BY A YOUNG FRENCH engineer (civil graduate), twelve years' experience in machinery, electricity, buildings; wants any kind of situation or job. Address H. B., LOUISIANA PLANTER. 6-6-98

WANTED—SITUATION BY A GRADUATE OF polytechnic academy; fourteen years' experience in beet sugar factories; well versed in practical sugar manufacturing; chemical control; arrangement of sugar house; beet culture, etc.; best of testimonials and references given. Address C. D., 147 Green street, Brooklyn, N. Y. 6-2-98

WANTED—A GOOD MECHANIC TO REPRE-sent me in each sugar parish in the State for the sale and construction of my new automatic cane transfer. Address E. W. WILEY, JR., Lecompte, La. 6-2-98

WANTED—A POSITION BY AN EXPERI-enced sugar maker for the coming crop; many years' experience; best of references given. Address ALBERT PEYRONNET, 1933 Dumaine street, New Orleans, La. 6-2-98

WANTED—A POSITION FOR COMING SUGAR crop as cane weigher, juice keeper or water tender, by a married man; best of references. Address GEO. TASSIN, New Orleans, La. 5-28-98

WANTED—A POSITION BY A COMPETENT vacuum-pan sugar maker to take off the crop during the next season; I can do my own clarifying; strictly temperate and reliable; references furnished on application; would accept an assistant in a large crop. Address SUGAR MAKER, Lock Box 20, Eagle Lake, Texas. 6-2-98

WANTED—BY A MAN OF MANY YEARS' experience, a situation as clarifier for vacuum pan, or sugar boiler and clarifier on open kettles, or open steam train; the best of references given. Apply to E. MEYNARD, Charenton P. O., St. Mary parish, La. 6-1-98

WANTED—A POSITION BY A YOUNG MAN with experience as clerk in a country or plantation store; has knowledge of book-keeping; good references. Address C. P. A., this office. 5-31-98

WANTED—POSITION BY A FIRST-CLASS sugar chemist of long experience, competent to take charge of any department of sugar manufacture; excellent recommendations. Address CLEMENS DOMES, 147 Green street, Brooklyn, N. Y. 5-19-98

WANTED—POSITION ON A SUGAR PLANTA-tion as manager or assistant for winter; also next year if everything proves satisfactory; can come October 1 and bring 50 or 100 hands for grinding if wanted; have had much experience in planting and managing labor. Address K., Greensburg, St. Helena parish, La. 5-26-98

WANTED—A POSITION BY AN EXPERI-enced engineer and machinist, thoroughly familiar with all classes of sugar house and refinery machinery, and can furnish first-class references from employers for the past fifteen years. Address J. E., 5351 Magazine street, New Orleans. 5-24-98

WANTED—A SUGAR OR MOLASSES BARREL maker would like a position on a plantation, or in the city; can furnish references. Address LOUIS ROGERS, 2901 Bienville street, city. 5-21-98

WANTED—A FIRST-CLASS ASSISTANT vacuum pan sugar maker; give references. Address, Lock Box 193, Patterson, La. 5-19-98

WANTED—A TECHNICAL, EDUCATED MAN, with three years' experience in Europe, and competent to conduct a beet sugar factory, wants any position where he can make himself useful. Address HOBROC, 46 Cabot street, Boston, Mass. 5-20-98

WANTED—A POSITION AS TRAMWAY EN-gineer. Address A. E. HUTCHINSON, 740 Nashville avenue, New Orleans. 5-20-98

WANTED—A POSITION AS SUGAR HOUSE engineer, for construction, repairs and general work. Satisfactory references as to ability and character. Address A. S. ARMSTRONG, 1026 Jena street, New Orleans. 5-10-98

WANTED—POSITION AS WEIGHER OR SIM-ilar for coming season, by experienced man of 35; first-class recommendation; well posted on general office work; also open for any kind of employment at once. Address E., care L. Schuster, merchant, Hohen Solms P. O., Ascension parish, La. 5-8-98

WANTED—A POSITION BY A FIRST-CLASS sugar-house and refinery engineer to do repairs and take off crop; has fifteen years' experience. Address D. W. B., No. 720 Valmont street, New Orleans, La. 5-3-98

WANTED—BY A FIRST-CLASS MACHINIST and engineer, fifteen years' experience in refineries and sugar houses; can give first-class reference. Address HENRY WESTON, 740 Poydras street, New Orleans, La. 4-26-98

WANTED—BY A FIRST-CLASS OPEN KET-tle, open pan and vacuum pan sugar maker, a position for this coming grinding season; best of references can be given. Apply to FELIX SERPASSE, St. Bernard P. O., La. 4-27-98

WANTED—POSITION ON A PLANTATION AS assistant manager, time or book-keeper; could take charge of a stable; I am a married man, 30 years old; have good references as to habits and capability; all letters will receive prompt attention. Address WILLIAM DETRICH, Hammond, La. 4-23-98

WANTED—A POSITION AS RAILROAD trackman on some plantation. Address E., St. Bernard P. O., La. 5-10-98

WANTED—A POSITION WITH A LARGE firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address SUGAR MAKER, care this office 4-16-98

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—A POSITION AS CLERK OR AS-sistant overseer, on sugar plantation; can give best of references as to ability and character. Address 500, care PLANTER.

WANTED—AN EXPERIENCED EFFECT MAN would like an engagement for the coming season; recommends the best in the State. Address J. FRANZ, Eureka, St. Louis county, Mo. 4-6-98

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milkier. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. R. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS IN the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98.

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98.

WANTED—A POSITION AS SUGAR MAKER would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, SR., No. 4730 Tchoupitoulas street. 3-29-98.

WANTED—A CARPENTER, WITH LARGE EX-perience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; A1 reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EX-perience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98.

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Painscourtville, La. 3-18-98.

WANTED—A POSITION AS CHIEF ENGI-neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES PO-sition at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS CARPENTER and builder; will take job work; can furnish good references. Address W. C. H., this office. 3-5-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

WANTED—A POSITION BY A FIRST-CLASS sugar maker, a man who has much experience in plantation and refinery boiling; also understands clarification and polarizing; habits strictly temperate; can furnish good references. Address A. P. R., care LOUISIANA PLANTER. 2-21-98.

WANTED—BY A YOUNG MAN OF FAMILY, a position as manager or assistant manager on sugar plantation; have had some twelve years' experience; reference furnished if necessary. Address F. F. MERWIN, Le Compte, La. 2-23-98.

WANTED—A POSITION AS MANAGER OR assistant manager on sugar plantation, by a young married man, 35 years of age; have had long years of experience in the cultivation of cane. Call or address PLANTER, 518 and 520 Gravier street, New Orleans, La. 2-24-98

WANTED—IRISH-AMERICAN, 26 YEARS OF age, honest, capable and efficient, desires position of management in Mexico. Address LAWRENCE M. DOOLEY, Station O, Philadelphia, Pa. 2-8-98

WANTED—A POSITION AS VACUUM PAN sugar maker for the coming season; satisfactory references given from former employer. Address L. L. D., 4301 N. Peters street, City. 2-8-98

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Best in the World. Send for Catalogue.
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THE LOUISIANA PLANTER

AND SUGAR MANUFACTURER, A Weekly Newspaper,

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AND

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2 inch.....	9 50	24 00	36 00	48 00
3 inch.....	14 50	36 20	54 40	72 80
4 inch.....	19 00	47 50	71 25	95 00
5 inch.....	23 50	58 75	88 15	117 50
6 inch.....	28 00	70 00	105 00	140 00
7 inch.....	32 50	81 15	121 75	162 50
8 inch.....	36 00	90 00	135 00	180 00
9 inch.....	38 00	95 00	142 50	190 00
10 inch.....	40 00	100 00	150 00	200 00
Half Page.....	60 00	150 00	225 00	300 00
Full Page.....	100 00	250 00	400 00	500 00

All communications should be addressed to THE
LOUISIANA PLANTER, 339 Carondelet Street, New
Orleans, La.

LIST OF STOCKHOLDERS.

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McCall & Legendre, Lucien Soniat,
Leon Godchaux, D. R. Calder,
James Teller, L. A. Ellis,
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Jos. Webre, Jules J. Jacob.

EXECUTIVE COMMITTEE:

Henry McCall,
Lucien Soniat, W. B. Schmidt,
D. R. Calder, Louis Bush,
John Dymond, President

The Louisiana Cane Crop.

The reports from our correspondents this week indicate a plethora of rain in some localities, and a continuation of the drought in others, the latter, however, being in a very decided minority. Speaking in general, it may be said that the crop would be benefited now by a few days of dry weather, permitting a vigorous attack to be made upon the grass, which has come out at a surprising rate since the rains.

A very marked improvement is chronicled in the appearance of the growing cane. The moisture for which it so long thirsted has put new life into it and has promoted its growth and development wonderfully.

Indian Rice.

THE PLANTER has received mail advices from Calcutta to May 12, which include a report from the Bengal Director of Agriculture to May 5, in which he reports on the winter rice crop, as follows:

Winter Rice.—The season generally was very favorable to the cultivation of the winter rice crops. The total area cultivated in 1897 amounted to 31,572,700 acres, against 29,143,200 acres cultivated in 1896. Two districts of these provinces reported bumper crops of twenty annas; twenty-one districts reported bumper crops varying from above sixteen annas to nineteen annas; eleven districts reported average crops of sixteen annas, and the remaining eleven districts returned crops varying from fourteen to less than sixteen annas. The crop for the province as a whole was estimated by this department at eighteen annas, against an eight-anna crop for the previous year.

The reports of the wheat crop are generally favorable, and as the prices of wheat and rice there affect each other, he says:

Although the prices of common rice and wheat have now fallen below the level they stood at in April, 1897, they are still far above the average, and it can not perhaps be hoped that they will fall permanently until the deficiency of food-stocks has been made good.

Mules and Molasses.

THE PLANTER is in receipt of the following letter from Hon. Walter A.

O'Neill, of Linwood plantation, St. Mary parish, which effectually disposes of the theory that an over-dose of molasses was responsible for the recent mortality among some of his mules, and it supports the idea recently advanced by this journal, that their death was due to other causes:

Editor Louisiana Planter: The annexed clipping from the Franklin News having been copied by several other papers, and having been made the subject of an editorial in the last issue of THE LOUISIANA PLANTER, I deem it necessary to state that the Franklin News, which is usually very correct in its statements, has made a mistake in ascribing to the eating of molasses the cause of the death of some of my mules. The News says:

"Hon. Walter O'Neill has lost several of the finest mules on his Linwood plantation during the last few days, supposed to have been the result of an over-dose of molasses, which he had run out through ditches into his pasture from the sugar house, which was then in operation drying out the thirds of last season."

I lost three mules and had several very sick from eating corn that had been harvested either damp or immature, and which had become mouldy. As soon as I found the mules sick, I investigated the feed, and finding the corn in the condition named, I stopped feeding it to the mules and gave them oats instead. The sick mules speedily got well, and I have had none sick since.

I keep molasses in an old sugar kettle in my stable lot at all times, and whenever my mules are not at work or in the pasture, they have free access to it. All night it is there for them, and at noon, when brought in from the field, many of them go to the molasses kettle before approaching the feed of oats.

I have found molasses wholesome and nutritious and a valuable addition to the grain feed for mules and horses, keeping them in good health and in fine working condition.

Very truly yours, WALTER A. O'NEILL.

Mr. Wibray J. Thompson, of Pattersonville, was registered at the St. Charles on Monday.

Mr. A. M. Underwood, of the Belleview plantation, and Mrs. Underwood, were registered at the Royal during the past week.

Mr. John Hill, of West Baton Rouge parish, accompanied by his son, Mr. George Hill, was a recent visitor to the city, stopping at the St. Charles. The Messrs. Hill, *pere et fils*, have some of the best equipped and most carefully worked property in the State.

LOCAL LETTERS.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been all that could be desired since last report. There have been frequent showers; not enough in some localities, it is true, and rather heavy rains in others. In general, however, there has been enough for present purposes. The crops have all taken on a rich, vigorous color, and are growing rapidly. It is admitted that the corn crop will be a good one, and the cane about a fair average. Some few are adding a little fertilizer here and there. The work of laying-by progresses favorably on some places, but most of our planters find the cane too small to let it go yet. We hear of no reports of grass interfering with the cane.

The heaviest rainfall was at the lower end of the parish, where ploughing at the Claiborne and Old Hickory plantations of Messrs. V. and J. Berthelot was interrupted for several days.

We had a pleasant ride down Bayou Plaquemine this week, and found the crops looking splendid. The cane from the Holly Farm and Belfort plantations will go to Cinlaire; that from Centennial and Little California to St. Louis; from the Crescent and Verret places to the Milly, which will be the only house running this year in that section. There is many a hundred acres of fine sugar land in this neighborhood waiting to be opened, and with $4\frac{1}{2}$ c. sugar that day is not far off.

The Rebecca factory, of Messrs. A. Adler & Co., is keeping up with the progressive spirit which has invaded the sugar section, and is putting in a crusher of the Schwartz make.

The mills at Rebecca have always borne a reputation for good extraction, which will be improved by the crusher. Mr. Lawrence T. Hebert, of Dorceyville, one of the best mechanics of the parish, will hold the throttle the coming season.

The J. Supple's Sons Planting Company, Limited, have contracted with Mr. John H. Murphy, of New Orleans, for a new 10-foot vacuum pan for their Catherine sugar house. The old pan will be retained and used for seconds.

It has been some time since we have seen the addition of a new name to the Louisiana Sugar Planters' Association from this parish. All read with pleasure and satisfaction the papers and discussions of this excellent organization, but seem to overlook the fact that in "union there is strength." Get together, gentlemen, and when you call for something you will get it.

Mr. John B. Levert, of New Orleans, spent a few days last week at the home of Dr. F. J. Kearny, of Plaquemine.

The jury for the next term of the District Court, to be held July 11, has been drawn, and on the list appears the names of a good number of planters and managers. Nearly all will be out of the field then.

Among the deaths lately reported from St. Louis, Mo., was that of Major Lawrence L. Butler, formerly a prominent citizen of this parish. Major Butler was a gentleman of the

old type. He was born and raised on the Dunboyne plantation, near Bayou Goula, but for many years has resided in St. Louis, Mo. His first wife was a daughter of the late Hon. Edward J. Gay. Five children of this marriage survive, and all of them have large sugar interests in Iberville. **IBERVILLE.**

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: The rains of the past two weeks have been of incalculable benefit to the growing crops, which are reported as improving very rapidly and, to a great extent, recovering from the effects of the late severe drought. This is particularly the case with cane. True, the crop is small and somewhat backward, but all reports received are to the effect that the stand is good, and that, though small, the plant is beginning to grow rapidly. The drought, however, was not without its compensation. During the month of May, there being no rain to interfere with field work, the planters were enabled to put their crops in excellent shape and keep down the grass and weeds. Now that the rains have set in, planters find little or no difficulty in keeping the crop clean. More rain just now would be welcomed, as enough has not yet fallen.

While the corn crop has improved, it is still far from promising. A few planters here and there have good corn, but the crop, taken as a whole, is small and unpromising. By no possibility can this crop equal that of last year.

Cotton is doing very nicely, the plant not having been injured by the drought. Numerous blooms are reported.

A number of plantations are receiving coal.

The river is gradually getting within its banks and all fears of an overflow this year have ceased to obtain in

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: After the prolonged drought we would have been content with a little rain, but the daily showers that are now falling seriously interfere with work, and, as one planter expressed it, while not too much for the cane, they are too heavy for the working of the crops as they should be worked now. The rains, however, have been very local, and in certain neighborhoods they have not had too much. Mr. Joseph LeBlanc to-day told me that they had so far had none too much, while Belle Alliance, only a few miles above, is complaining of a plethora of precipitation. Out on Grand Bayou, up to a few days ago they had been omitted in the distribution of rain, and I do not know that they have had any since. Pierrepont and Belle River both complain of the continuance of the drought, but from Napoleonville down all would be content with a week or ten days of dry weather.

The cane is growing rapidly, and has a fine healthy color. It has been thoroughly cultivated, and if properly laid by, the prospects for a fine crop would be flattering. The moisture has enabled the crops to assimilate the fertilizers, and the hot weather has contributed

to the rapid growth of the cane. Never have we seen the grass and milk-weed come up more quickly nor more thickly. All of the seeds seem to have been laying dormant, and the rains made them come up at once in appalling force. They could be as quickly gotten rid of were we to have a few days of active campaigning with plows and cultivators.

We learn that Messrs. Landry and Mayer on Cedar Grove contemplate extensive improvements. They have an excellent place, and under the able management of Mr. Landry large crops will be made. They purchase some cane of their neighbors, and will doubtless in the near future extend the amount of cane bought greatly.

The crops of corn and pease are particularly promising, although the stand of corn in the stubble owing to the dry weather is not so good as it might be.

We learn that work on the Napoleonville end of the new railroad is temporarily suspended awaiting the adjustment of some question regarding the right of way over Elm Hall. The railroad won the first skirmish in legal proceedings involving the expropriation of land on Little Texas, but the matter at issue will be passed upon, we learn, by the Supreme Court. The injunction case against the sheriff by E. & J. Kock was decided in favor of plaintiff. It is also to be taken up to a higher court.

Messrs. Beattie and Knobloch, of the Lafourche bar, and Messrs. Gondran and Pugh, of Ascension, were in attendance on court here this week.

We learn that Mr. Albert L. Folse, of Ascension, formerly of this parish, has enlisted in the regiment that is being raised by Col. Boyd. His friends predict that he will serve his country to the credit of Assumption and will make a name for himself.

Hon. Elphege LeBlanc, who presides with equal grace over the police jury of Assumption as over the destinies and crops of Belle Terre, reports big improvements on this model place. Improvements seem to be the order of the day, and the mechanics say that work has been more plentiful than for several years.

Messrs. Chas. Holland and Jules Goslin, representative drummers, were hustling between showers in this and adjoining parishes.

The oil drummer and machinery advance agent have been very much in evidence this year. They might perhaps be dubbed advance agents of prosperity. **MORE ANON.**

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Should the precipitations for the latter half of the month equal what have thus far fallen the rainfall for June will be above the normal; at least, such will be the case in some sections of this parish. In the central portion of the parish ploughing was resumed on some places on Wednesday afternoon, and by Friday morning the land was ploughing in admirable condition, and laying-by the late planted corn and planting pease was to be seen, also laying-by stubble and cleaning the drill in plant cane, followed by the cultivators and ploughs. In the upper portion of the parish, on the line of railroad,

more rain has fallen and work has been retarded somewhat in consequence.

Crops generally have improved since the rains began this month, particularly the corn, it being a plant which grows rapidly after rains, which follow a dry spell. The color is now good and the promise of a good yield favorable. The canes are of good color and are rooting—a process which must take place before there is any marked leaf or stalk development. On some places the canes are suckering well, yet on others complaints are heard. Where the original stand was good, there the suckering process is scant, which is almost always the case, particularly on old lands.

All are now anxious for favorable weather to free the fields of the young grass and weeds. The tie vines and white pursley are rampant, but fortunately small at yet, and with dry weather can be easily exterminated, but should the showers continue they may give trouble.

When the lands are well drained the stand of ratoons is above the average, where of the first year; the second year stubble is somewhat defective where the lands are exhausted.

On the Concord of Col. Wm. Minor are some ratoons of the third year on new lands which will compare with those of the second year on most places, the soil having given vitality to the stumps. On places where the rainfall was not deficient the tonnage was heavy, and this year the stand being good, and the fields having been well exhausted by producing the large yield last season, the chances are the output during the coming campaign will be disappointing if the fields have not been heavily fertilized, as the growth from now on must be rapid owing to the canes being somewhat backward. On places where the showers had not been too heavy or frequent field work continued until Tuesday noon, after which the sky assumed a threatening appearance, and shortly heavy showers fell, and from indications they were general.

Wednesday of last week was fair in the morning and cloudy in the afternoon; Thursday partially cloudy; Friday, light local showers during the day; Saturday, light rains in the morning but clear later; Sunday local rains, also Monday; Tuesday heavy rains apparently general in the afternoon, and Wednesday favorable in the morning.

The weekly official weather report from Schriever is as follows:

	Temperature.	Sunshine.	Rainfall.
June 6.....	94	69	100
" 7.....	98	68	75
" 8.....	92	67	100
" 9.....	94	66	100
" 10.....	94	67	50
" 11.....	90	71	75
" 12.....	89	70	75
	94	68	.82
			1.06
			TERREBONNE.

Vermilion.

[Special Correspondence.]

Editor Louisiana Planter: Two weeks ago when I was sending you the news from this section we were then in the midst of a very

damaging drought and were straining our very eyes out to detect some visible sign of rain, but that happy time came and has passed and now the entire population of Vermilion parish are looking round about them for a slight sign that would indicate a few days' dry weather. On June the first a slight rain fell, followed by a heavy one on second, which has continued to be repeated daily up to and including today, the 14th, which has proved to be a record breaker; rain began to pour down at 4 o'clock and continued in a constant stream as if a cloud-burst was upon us till after 5 o'clock; there was about six inches of rain fall, and is the heaviest rain that has visited this section since the second day of April, 1897, when we had a nine-inch rainfall in about four hours' time.

The crops generally are responding readily to the influence of these rains, as is shown by the marked change in color and the general improvement in condition. Corn shows the exhilarating effects of the rain more than other plants, and with not too much rain a heavy crop will be made; cane has taken a fine start and will in a very few days recover from the setback it received from the drought. A great deal of stubble had not put up until the rains set in, but now the tender scions are to be seen pushing their way out and making a complete stand. The stubble stand is much better than plant cane this year, though a full crop is looked forward to; cotton is very backward and if persistent efforts are not made by the cotton growers to put their lands in good condition and clean out the weeds and grass that seem to be infesting it the crop will be almost a total failure. Rice is now in its element, though there is too much water in some places for small rice. This condition exists in the Gueydan section, where the rice had been slightly flooded from the canals, and the heavy rains coming on have put it completely under water and subjected it to the ravages of the crawfish. The Gueydan rice crop is very fine and presents now a most beautiful sight. Providence rice is now growing nicely and the crop promises to be a fair one, sufficient water having been caught in reservoirs during these rains to almost make the crop.

The stock men of this parish are very much interested at present over the early appearance of charbon among the cattle in the lower part of the parish. It is reported to exist on Chienere au Tigre and Pecan Island, many cattle having died of it already. Immediate steps were taken to check the spread of the disease, and an early stamping out is expected.

Hon. Adrienne Nunez, of Liveoak plantation, Lower Vermilion, is in town, and reports good rains and a healthy condition of crops in his section.

Mr. W. H. Lovegrove, of the Hall-Slutz Irrigating Company, Limited, is in town, and will go to the pumping station of the company to supervise setting up the large pumps, to be put up at once.

Mr. Ambroise Mouton, of Lafayette, was through our parish several days last week, looking after cane for the Lafayette refinery.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: At last the rains have come to the aid of the farmer. The heavy rains which fell over the greater part of our fair country on the 11th inst., the first to amount to much since April, were an immeasurable blessing to the planters, as well as to the business interests of the parish and country.

It is highly probable that the approach of the summer solstice will bring such atmospheric changes that rain may be expected to fall, if not daily, at intervals of a few days, during this and next month.

If there is to-day one class of men feeling more hopeful than another, since the advent of rain, it is most assuredly the cane growers.

The greater part of my time was put in during last week in the vicinity of Barbrec, and the Augusta Sugar Manufacturing Company, Limited.

Heavy rains fell there on the 11th inst., benefiting the growing crops of cane, corn and cotton.

Considering that there has been so much and such persistent dry and hot weather for a month past, I noted that the cane crops on the Augusta plantation were looking very promising, showing conclusively that Mr. A. Lesseps as general manager and his stirring overseer, Mr. Douglas, have not been amiss in field work. At the sugar factory of the Augusta sugar plant, the walls and foundations will be completed at an early date and ready for the reception of the machinery.

The earthwork on the new switch and side tracks from the main line of the Alexandria branch of the Southern Pacific Railroad, has been completed out to the factory, to be followed in a few days by the ties and steel rails.

A hasty view given to Mr. O. S. Prosser's fine place, Barbrec postoffice, revealed some fine crops. There is 125 acres to cotton in one field now beginning to bloom, and as it stands it presents a beautiful picture worth going a long way to see. His corn crops had been suffering some time for want of rain. Mr. Prosser hopes to plant some forty acres to cane next year, gradually growing from cotton to cane, unless Uncle Sam decides to annex Cuba and the other sugar producing islands of the world, in which event he may have to stick for a while longer to the old reliable cotton crop, no matter if it should sell for less than five cents the pound.

Mr. W. L. O'Quinn has a fine farm opposite and across Bayou Breuf from Mr. Prosser. Mr. O'Quinn has on his place some sixty acres of beautiful cane and a fine corn and cotton crop.

Somehow the types set me all wrong last week in my report on the acreage to plant cane on the Powhontas plantation. Instead of reading as it did, 800 acres of plant cane, it should have been 300 acres.

Mr. George Kennedy, one of Barbrec's promising young men, has 25 acres to cane this season to which he is giving his undivided attention. The greater portion of it has to date been fertilized with crushed cotton seed so thoroughly worked that our stirring young

friend can not fail to earn something handsome by the time harvest is over.

Mr. Henry Shaw, managing on Barbreck plantation, has his crops of cane and corn in a good state of cultivation to receive the late rains and grow into maturity.

The crop prospects in the locality of Cheneyville and Theoda are said to be promising and doing well since the late rains set in.

Mr. Demartrait, managing for Messrs. Maginnis & Gilmore, formerly the old Crouch place, has, so I learn, an excellent cane crop this season. Mr. C. Cannon, of the Magnolia plantation, Cheneyville, is the possessor of a beautiful cane crop.

Late advices, just received, from Lecompte, Rapides, inform me that the crops of corn, cane and cotton growing there are decidedly good.

The late rains have worked like a charm on the cane, which is now very promising.

ERIN.

A Texas Statement.

We print below a letter received from Mr. A. F. Delbert, the secretary of the Lone Star Sugar Company, Columbia, Texas, which explains itself:

COLUMBIA, Tex., June 14, 1898.

Editor Louisiana Planter: It has come to my notice that your paper some time ago stated that the Lone Star Sugar Company, Limited, of this place, was not going to grind this fall. A friend of this company having heard the remark passed that such a statement had been made by THE LOUISIANA PLANTER, I take this means of denying same, and furthermore adding that we are at present preparing everything with that end in view, and will be ready for any and all cane brought to us after October 20, 1898.

It is true we have a small crop of our own, but we have contracted for much cane outside, and will have a nice campaign on this alone. Our fuel is contracted for, as well as the services of a sugar boiler, not counting the various mechanics and engineers whose services are required about a place of this character. I have missed THE PLANTER for some time, and if such a statement has actually occurred, please give this statement publicity, so as to remove any doubts in minds of Texas planters, who may infer by it that we are not in the cane buying market for fall of 1898, thereby creating uneasiness in those who have contracted to ship us their cane crop.

Yours respectfully,

LONE STAR SUGAR COMPANY, LTD.,
A. F. Delbert, Secretary.

Sugar from the Philippines.

[Special Correspondence.]

Editor Louisiana Planter: There is a clerical error in my article in THE PLANTER of the 28th ult. which I desire to correct in case of question. England's imports of sugar from the Philippines in 1896 should read 69,138 tons, in place of 345,691 tons as printed; this came of getting hundred-weights mixed in reducing such to tons, and overlooked in the reading.

I give the normal capacity of the Philippines for producing sugar gathered from good authority, although the sugar trade statisticians give conflicting statements not of capacity but of recorded exports, varying from 125,000 to 150,000 tons per annum, but trade statements are no criterion of what the islands are capable of.

I am glad that I can not take so gloomy a view of our sugar production outlook as sugar producers seem to without cause. Sugar will be sold to England as freely as in the past by Philippine Islands producers, as it enters England free of duty, and I feel assured that Congress will take such action as will not cause home producers to suffer, and sugar has seen its lowest price for some years to come; but I can see some system of bounties on home produced sugar is likely to obtain in case Porto Rico, the Philippines and Hawaii are appropriated. There is more to fear from European beet sugar even with discriminating duty. I hope to see a great increase in home production this year.

H. A. BROWN.

New Discovery in Sugar Making.

The *Times-Union and Citizen* says: Professor Stockbridge, the chemist at the State Agricultural College, has made a discovery which will alone richly repay to our people all the cost of that institution. The following facts have been thoroughly tested by experience, admitted by experts, and will carry a valuable lesson to every homestead in the State.

If the cane juice as it flows from the mill be filtered through common Spanish moss, green from the trees on which it grows, and then boiled even in an open iron vessel till crystallization occurs, the sugar will drip white, in beautiful crystals, that need only to be crushed to make the "coffee sugar" of commerce. The color is slightly tinged with a cream tint, and it is sweeter than need be, but these come only from the absence of terra alba.

Now, in these facts, rightly used, there lies a declaration of independence for every Florida farmer, and still another proof that brains applied to our climate and soil need pay no tribute to Cuba or Hawaii, or any power or potentate on God's footstool. No new principle is involved. Brown sugar is unsightly, because it is not clarified—the moss is only the best clarifier for eliminating impurities and making a large per cent. of the sugar available for household use in an agreeable form.

Trade Notes.

The Gulf Bag Company L't'd.—We take pleasure in drawing to the attention of our reader the advertisement of the Gulf Bag Company, Limited, that appears on page II of this edition.

This company now has the exclusive agency, in Louisiana, for the celebrated Oakdale Filter Bags and Filter Cloths, which have been favorites with the planters in this State for years past.

The Gulf Bag Company, Limited, have unusual facilities for handling this class of

goods, and planters will find that all their inquiries by wire, mail, or long distance telephone, will receive immediate attention.

They make a specialty of bags for cotton seed oil mill trade, bags for rice, and twines and ropes of all kinds. They also make a specialty of bags for sugar, and have for years past, supplied the great majority of bags used for granulated sugar in the Southern States, having had the contracts for the American Sugar Refining Company among others. For sugars other than granulated, there is no question, but that bags are much cheaper and better in many respects than barrels.

This company will take pleasure in submitting samples and prices on application. In addition to the above, the Gulf Bag Company, Limited, keep constantly in stock, for the Southern trade, Perkins' Camels' Hair Press Cloth of all widths, as well as Perkins' Camels' Hair Sewing Yarn. The plant of the Gulf Bag Company, Limited, is unsurpassed in mechanical equipment. It supplies the entire Southern country, and in addition to New Orleans, is represented by branch factories in Boston, St. Louis, Minneapolis, Omaha, West Superior, and San Francisco, and they are also agents for the Home Cotton Mills, of St. Louis, and the Indianapolis Bleaching Company, of Indianapolis. All planters are cordially invited to inspect this model industry, at the Southeast corner of Julia and Tchoupitoulas streets, at any time they are in New Orleans.

Pumps for Sale.—Elsewhere in this issue we publish an advertisement inserted by John Ward's Son, Calliope and S. Peters streets, New Orleans, in which is offered for sale a number of new pumps of various capacities. Mr. Ward has done a sensible thing in putting opposite each pump the price which he asks for it, delivered f. o. b. cars at New Orleans. The pumps are from the celebrated Hooker Pump Works at St. Louis, and we trust they will speedily be disposed of.

Mr. J. McBride, of Terrebonne, and Mr. D. McBride were in the city on a visit a few days ago. They registered at the St. Charles.

Mr. F. A. Bonvillian, of Houma, was a guest of the Commercial Hotel on Monday last, as was also Mr. C. A. Buford, of the same locality.

Mr. H. Shelby Sanders and Mrs. Sanders, of Iberia parish, were registered at the St. Charles Hotel a few days ago.

Mr. E. P. Munson, one of the leading sugar planters of Assumption parish, was in the city on a visit a few days ago, and registered at the Hotel Royal.

Hon. Wm. Porcher Miles, the Nestor of Ascension parish sugar planters, was a guest of the Grunewald during the past week. He was accompanied by his son and daughter.

Mr. R. W. Cocke, who is prominently identified with the sugar interests of Terrebonne parish, was in town mingling with his friends during the past week. He stopped at the Commercial.

FOREIGN LETTERS.

Berlin.

BERLIN, May 28, 1898.

Editor Louisiana Planter: Right at the beginning of this week the strenuously longed for change of the weather has set in at last, and moisture and coolness were replaced by dryness and warmth, the latter even in a degree fairly ahead of the season. This exceptionally fine weather, however, prevailed only in the first part of the period under review. In consequence of several thunder storms, combined with local showers, the temperature fell to a much less summerlike degree, and with a black covered sky the weather assumed again a threatening aspect, but without returning wholly to the bad ways it left a few days ago. As might have been expected the change of the weather has done a large amount of good to vegetation in general and to the beets in particular, and it is a pity that a good deal of them have been sown only these latter days. Those put into the ground at an earlier date have greatly profited by the better weather, their growth has been quite satisfactory, whilst the coming up of the late sowings has been accelerated in a marked degree. But, as a matter of course, the entire backwardness of the season cannot be expected to be recovered in a couple of fine days. In the majority of districts the aspect of the crop has much changed for the better; elsewhere, however, the sowings are not finished yet, or resowing must be resorted to, and in some places it has been impossible to grow beets on fields originally destined for them, the soil being in a too bad condition, and the time being too far advanced. Any way, very good weather is required to insure good crop results, and also applies to the other beet growing countries, where, by the way, a similar change of the weather has taken place, after a time of more or less inclement meteorological conditions all around.

A short time ago I mentioned the fact that Russia imports beets into Germany. A like traffic is established between Holland and Belgium, a number of Belgian factories situated near the Dutch frontier being supplied with beets of a district in Holland called the Zeelandish polders. This state of affairs is naturally not exactly to the taste of the Belgian beet growers, who managed to induce their government and legislative corporations to get a clause inserted into their sugar law now in force to the effect that foreign beets are made subject to a duty of one franc per metric ton. This year again large contracts have been concluded by Belgian manufacturers for Holland beets and on this account it seems the former are given a respite, inasmuch as the levying of the import tax on beets is postponed for one year.

In Austria the provisional sugar law and the bounties fixed thereby expire on July 31 next. In 1896, in both parts of the Austro-Hungarian monarchy, a transient law passed for one year, providing that the amount of bounty, which originally was 5,000,000 florins shall, be raised to 9,000,000, while the consumption tax was increased from 11 florins to 13 florins.

When this bill was enacted the opinion was prevailing in Austria that within a short period the bounty question would be settled, and, therefore, the legislators believed the space of a year sufficient to leave the new law in force. This plan, however, has not been carried out, for when the proposed year was on July 31, 1897, at an end, the bounty question found itself as far from a settlement as ever, and another year had to be added to the period for the law being in force. But this second year is now also approaching its end, and as the bounty question is still a question, and as besides nothing has changed in the situation which once caused the government to propose the law in question, there will be no other way but to prolong the provisional law for another year, and such is, as reported, indeed the intention of the imperial government of Austria, which implies that a bill reforming the entire sugar law, submitted lately to the Reichsrath, will not become law in the near future.

The electrolytic process Gramme-Say, of which I wrote you the other day, will be installed in the Raffinerie Tirlemontoise at Tirlemont, Belgium. It is, however, not quite clear whether the new process shall be applied in the refinery or in one of the raw sugar factories owned by the Tirlemont company. With regard to the extraordinary interest which attaches to this new invention it is most desirable that it undergo a thorough trial in an establishment producing beet sugar (in cane sugar factories it has been found to work most satisfactorily), and that results should become known to see if they confirm the great expectations now afloat with regard to this process.

As usually at this time of the year I give you a short abstract of the annual report of the Koerbisdorf factory, which on account of its large farming interest is of particular importance. The entire area the factory had in 1897-98 under cultivation amounted to 1948 hectares, against 1927 hectares in the preceding year, whilst the surface used for beet culture alone was 580 hectares and 567 hectares respectively. The entire beet crop obtained amounted to 25,116 tons (44.8 tons to the hectare), which is about the same as last year. But besides the self-grown beets 26,713 tons were bought from farmers, so that the whole quantity worked reached 51,829 tons, which cost the factory in the average 15 marks for the long ton. The yield in the factory embraced 6116 tons of sugar (11.799 per cent.), and 1230 tons of molasses (2.18 per cent.). The gross profit, including that of coal pit and a brick factory belonging to the company, amounted to 390,215 marks, of which only 24,474 marks were furnished by the sugar factory. This notwithstanding is an improvement, for in 1896-97 the work in the factory ended with a loss of upward of 24,000 marks. But the better result in general is due to the profit made by the farming section of the establishment, and more particularly to the higher range of prices paid latterly for cereals. But of the above amount 162,000 marks were paid as a 6 per cent. dividend, as against 4 per cent. in the campaign 1896-97.

As to the markets their rising movement

continued particularly on account of raw sales for America being reported, but it was a little less vigorous, the proximity of the Whitsuntide holidays checking business to some degree. The news of the war does not prognosticate an early settlement of your strife against Spain, and this has added strength to the situation. Prices close again higher this week all around, but in Germany the advance has been not very large, actual 88 per cent. rendement being quoted at Magdeburg at 10.55 to 10.80 marks, as against 10.45 to 10.75 marks last week, and the quotation at Hamburg for delivery May has been 9.70 marks, which is rather lower than a week ago. Refined were more active on the second part of the week and a good business was done at fully maintained prices.

ROBERT HENNIG.

Barbados.

The faithful record of the past fortnight's progress in reaping is twofold—splendid for steam mills, absolutely tantalizing for windmills which sometimes spin briskly in a gusty breeze, or stick idly across, or barely turn as the wind dies fitfully away. The weather, too, has been exceptionally hot and dry. Now and again there are appearances of rain, when a few heat drops might fall, but not a decent shower enough to lay the blinding white dust of the roads, much less to slake the soil thirst or wet a few inches of surface, and so enable us to put in a crop that may be sorely needed of our hardy, reliable, wholesome and nutritious sweet potato. Nature has been somewhat unkind to us in this matter, the price of bread going up, even before the war-wolf has been thoroughly unloosed, and not a drop of rain water enough even to "stick" the slips—for once stuck they are capable of taking care of themselves—of the most prolific food-root in the world. Without such food-crop reaping in the next three or four months, short commons might possibly be staring us in the face. Our people are patient and long suffering, and the turbulent and disgraceful scenes lately enacted in Italian cities would hardly be imitated here, but still a hungry stomach is a dangerous monitor. Two things we find it difficult to comprehend, why the Spanish-American war so immediately raised the price of the stock of breadstuffs already stored in the island, and why local offers for sugar should be so much lower than American quotations would lead us to expect. These are things which none but those behind the scenes can understand. Whatever happens, one thing is sure, the burden of the producer in our island is never lightened, but always tends to increase; he is a perfect Caliban for rolling logs for warming others.

The young crop is wonderfully vigorous and healthy considering the heat and dryness of the weather. The plants are really growing and taking possession of the fields, which in their square regularity, checker the landscape with wholesome green; nothing could exemplify better than this green regularity the needful adaptability of our soil for sugar cane culture, for the plant is at this moment flourishing beneath a brazen sky, and drawing nur-

ture from a soil unmoistened by rain water for a month or more.

Our great local desideratum is efficient reaping machinery. It can not be too much emphasized that our antiquated methods are too wasteful. We do not want refineries unless, indeed, we could command markets for their product, nor do we want central factories—single product factories—that can only turn out crystals of a high grade for special markets, but our real want is quick reaping machinery, capable of reaping down our fields when sweetest with saccharine, factories that will enable us to begin our sugar making at the right time, and to finish, at least, before serious deterioration in yield has set in. These are really serious points for consideration, all converging to a single issue—stoppage of the woful waste which now obtains as a result of our antiquated modes throughout the length and breadth of our island. Waste stopped, our juice can be converted into raws and molasses for America and Canadian refiners, or crystals for British markets. Our single industry may thus, as it were, be trebled, made to flow along different commercial routes and supply varying markets; nor is there any reason why the sugar cane industry need necessarily be all packed in the single market basket, in which of late years so many broken eggs have been found to our sole sorrow and loss. The need for quick and efficient machinery is accentuated by every-day facts. Already, even so early in the month of May, deterioration is noticeable, and canes which yielded two hogheads in April, are now in many places giving only one and three quarters. A fourteen months' crop on which the trade life of a community depends is too precious a thing to allow any portion of it to run to waste. How to make sugar pay is certainly a great problem in these days. The criticisms of a Jamaica planter in the *London Produce World*, as reproduced in our issue of the 11th inst., are much to the point. This writer truly argues that it can not pay in these days to plant sugar cane in any but the best and most suitable lands. In our own island, that may be truly called a sugar cane garden, it is worthy of note how absolutely the soils of contiguous parishes differ, but even fields, lying side by side, and apparently one in quality, annually differ in their yield, although both receive the same treatment. The sugar cane, therefore while one of the hardest of plants, and quite ready to grow wherever bidden in West Indian soil, is at the same time the most critical of plants in the matter of soil, and only gathers its fullest content of sugar when in that spot which it likes best.

As the Jamaican planter points out, it did very well in days when sugar fetched £20 to £30 a ton to put good, bad and indifferent lands under cane cultivation. But in these days of low prices, it is the high yield which pays, and the economical question arises. Does it pay to strike an average between good and bad lands, seeing that the latter reduce the average of the former while costing as much if not more to cultivate? It is a nice little economical question for the considera-

tion of planters, for as it is truly argued, lands well filled and manured, and capable of giving three to four tons of sugar to the acre, can, even with present prices, laugh at bounty-fed sugar. But if the old system is worked out, and this new one of only the best lands for sugar cane is to be introduced, the question naturally arises what are we to do with the lands thus thrown out. No doubt our planters would be equal to the occasion and utilize them to fatten the choice cane lands, and in one way or another add to the food supply and general prosperity of the country. Already this system of natural selection in cane culture has influenced the agriculture of our island, for in the Scotland, or St. Andrews district, it has been found impossible in many places to continue sugar cane culture, not because the lands are inferior, or unsuitable, but because of the hilly and difficult and therefore expensive nature of the country; these lands no doubt would be quickly restored to cane cultivation in the event of any revival of the sugar trade. The question, however, for planters to consider, is whether it would pay better to have a crop concentrated on say forty acres of good land highly tilled and highly manured, or to add twenty inferior acres to them and so spread the expense and the same quantity of manure over sixty acres. It is merely a question of intensive agriculture, the results of which in some countries have been very remarkable. But after all, is not our system of agriculture already sufficiently intensive, the chief fault being that we do not apply enough of that cattle manure which is the secret of successful agriculture; the old "dung basket" has been displaced by a straw hat arrangement which can only hold a modicum of the manure necessary for a cane hole. And moreover in our over-eagerness to bring every scrap of land under cultivation we have encroached too much on the sour grass fields and the pasture lands, and so have not the material to make that rich cattle manure which is the sole guarantee, with the blessing of rain water, of three tons to the acre, which is or ought to be the standard of a sugar cane planters' ambition.—*Agriculture*.

Barbados.

A fortnight of dearth and sunshine has been our portion. No rain, although threatenings of same are not unfamiliar. In the out districts of the island the excessive strain upon the succulence of moisture has at last given way, and wide openings are observant everywhere, with fields of parched pasture to the right and to the left. The earth crumbles beneath the weight of every-day traffic, and the dust is as it is seldom known to be. In the city there is little difference; but that the packing of buildings is so close as to exclude the sea air, which would in some measure minimize our sufferings. At the moment we write the average temperature is about 83 deg., and two such unwelcome attributes as the glare and the dust swell the inconvenience to alarming and almost insupportable dimensions. Our white streets are, on these occasions, very harmful to the sight; whitewashed buildings are equally as injurious, and the colony

abounds in both of these. At 9:30 this morning, however, a rain set in and fell at intervals, in light showers, for some time. Little as it was nevertheless it was thankfully received.

The sugar crop is nearing completion, most of the steam factories having already closed their operations. Wind has played an awfully fickle game with the old-fashioned mills during this season, many of which, though of very small acreage, are still seen going; though a state of unpropitious weather is hardly conducive to plentiful results. The young crops have borne up under the contrary pressure with credit, but they are not what they would be under more favorable opportunities. In some parishes it is mentioned that the yield has been good, and up to that of the Bourbon in its best days. This is one of those agricultural pronouncements which we accept with reserve. The Bourbon has been the faithful variety of West Indian experience, and even when handicapped by a combined visit of borer, fungus and else, the old friend showed a clean pair of heels to more youthful and vigorous competitors. A new broom sweeps cleanly, we are told, and no doubt the new varieties—sucking the health-giving germs left in the field by the rejected old Bourbon—during its first few years will show promise of profitable cultivation; but till that comes we believe in the Bourbon, and feel fully persuaded that wandering planters will return to it some day. The prices have gone up by 10 cents since last we wrote; \$1.75 for sugar in hogheads, and \$1.85 for it in bags, with a stubborn figure of 12 cents per gallon for molasses, is a much better state of affairs than existed at this period last year. Of course, with the Spanish-American war, everything has gone up; but we are now refreshed with hope that the end of the tether is not so near. Experts to the 20th inst. show that 11,726 hogheads, 2322 barrels, and 72,505 bags of sugar had been already dispatched, while the exportation of molasses amounted to 19,571 puncheons.—*Globe*, May 26.

Mr. M. J. Kahoa, of the well-known sugar planting firm of Hamilton & Kahoa Bros., West Baton Rouge parish, was in the city on a visit a few days ago and put up at the Hotel Grunewald.

Capt. W. H. Norwood, of the Lower Coast, was a visitor to the city on Saturday and registered at the Hotel Royal.

Col. Geo. G. Zenor, of St. Mary parish, was in the city on a visit a few days ago. He stopped at the Commercial Hotel.

Mr. Louis Kramer, a prominent sugar planter from the vicinity of Franklin, La., was also a recent guest of the Commercial.

Mr. C. S. McFarland, of Burnside, La., was in the city on a visit a few days ago. Mr. McFarland was elected a member of the Louisiana Sugar Planters' Association at the last meeting of that body.

Mr. P. M. Lambremont, of St. James parish, accompanied by Mrs. Lambremont, was among the recent arrivals at the Cosmopolitan Hotel.

Col. Lewis S. Clark and Mrs. Clark, of Lagonda plantation, St. Mary parish, were guests of the St Charles Hotel on Monday.

Recuperative Agents and Special Measures.

Agriculture, than which there is no more ennobling vocation known to or followed by man, is gradually assuming that position in the most enlightened countries, not only as an important source of wealth to nations, but as an intellectual pursuit which it richly merits, and noted scientists the world over are striving to more fully comprehend its chemistry, etc., and gain a nearer insight into the mysteries of plant life, and agriculturists are making efforts to practically apply the knowledge thus acquired. Having the elements of plant life in earth and air (brought into action by light and heat), the aim of the agriculturist is twofold—firstly, to enhance the fertility of the area under cultivation, and, secondly, to so treat the soil that the seeds sown will produce their kind in abundance and greater perfection, and the plants cultivated can in their different stages of growth, and after maturity, be utilized to nourish man and the domestic animals reared for his many uses, with greater economy than when intensive culture is ignored. In his study of plant life, when noting the stages of growth, he marvels at the action of what are termed molecules, of which the mineral and gaseous elements are composed, and perhaps concludes that he may yet be impelled to the belief that they possess an intelligence, or something very much akin thereto—how else account for the marvelous powers of selection and absorption displayed in the wonderful transformations witnessed from seed time to harvest when the plant has reproduced its kind.

Tillers of the soil differ widely in their methods. Agriculturists in the true acceptation of the term, where circumstances will permit, follow a system of recuperation, and many others from divers causes practice depletion to the future detriment of regions and localities when persisted in for a term of years. Germane to the subject is the report of the Department of Agriculture for 1897, which contains some instructive data as to the yield of corn and wheat (covering a period of ten years) in the different States. In the production of corn Massachusetts takes first rank, with a yield of 36.7 bushels per acre, and Florida is credited with an output of only 10.1 bushels. In wheat Vermont ranks first, with a yield of 19.3 bushels, and South Carolina only 5.9 bushels. Soil, qualities and meteorological influences may have in some measure caused the very marked discrepancies; yet an investigation of the methods would probably disclose that where the smaller yields have been harvested, there depletion has been practised.

Recuperation is had through the instrumentality of chemical action, micro-organism and soil communication, wonderfully complex in their combined influence in the upper stratum of the earth, yet indispensable in the successful production of cultivated plants. The aim of the progressive agriculturist is to so utilize the elements and forces of nature as to augment the fertility of the soil without any undue expenditure of capital in the purchase of foreign substances to increase production.

That the forces of nature may be brought into active play—there must be light, heat, air and humidity (with the necessary mechanical division of the soil), for with these conditions favorable, the chemical and bacterial activities are accelerated in the earth, and the elements of plant food are made available. Drainage may prove the most important recuperative agent in one region or locality, as is the case with irrigation in others, depending on the quality and conformation of the land, and the amount of annual rainfall. Where the lay of the land is somewhat flat, and the precipitations prolonged and heavy at times, drainage, whether through open ditch or otherwise, becomes imperative before any economical recuperation can be put in practice, as such can only be accomplished by chemical action, and the several transformations brought about by the increased activity of micro-organisms. Without soil friability nature's forces become nugatory, and in consequence large crop yields can only be had by the application of costly extraneous manures in excessive quantities, thereby very materially adding to the cost of production. To secure the best financial results from the different recuperative agents the very necessary mechanical division of the soil particles must be had and maintained during certain stages of growth of cultivated plants, as the soil ferments under such conditions are most active in transforming the elements which cause luxuriant vegetation.

Economical recuperation can not be practised without rotation. Plants which derive their oxygen from the air should be grown from time to time after those which thrive only on what is found in abundance in the soil. Where small grain is the principal money crop, the clover is an admirable recuperative agent, whether pastured or otherwise, as it accumulates nitrogen in large quantities. That leguminous plant should be selected which is best adapted to the wants of the tiller of the soil, few living where varieties can be advantageously cultivated. In the tropics and semi-tropical countries, pease and beans of different varieties secure heat adapted to the climate and cultural requirements. The former germinate quickly in pliable, humid soils, and the after growth is so rapid that in most instances extraneous vegetation is smothered out by the dense shade of the luxuriant leaves and vines. It is questionable if any better recuperative agent will be found for the tropical cane in this State than that variety of pea which may be found best adapted to the wants of those engaged in cane culture. Unfortunately the fields in too many instances do not reap the full benefit of the crops grown, as quantities of the vines are removed for feed for stock instead of being ploughed under, as a green manuring. Pea-vine hay may be good forage when cut at the proper time (before the nutritious properties are turned into woody fibre and before the vines become so mature that the leaves fall off in harvesting) and the season favorable for curing; yet a miserable makeshift when housed under average conditions with showery weather, resulting in a valuable manure being removed from the fields and

converted into a musty mass, injurious to work animals and only fit for the manure pile.

Where the lister plow is used to split the corn rows, and the ridge is afterward formed with the four-mule plow, the roots, vines, and leaves are massed in the centre—the future seed bed for the mother canes to be planted. The advantages of such treatment are many fold—the roots of the canes at once find their nourishment in close proximity—the nitrogenous and mineral elements supplied by the decay of the vines, etc., and germination is hastened, and, should wet or dry weather follow planting, the vegetable matter will enable the sprouts to withstand climatic extremes infinitely better than where there is an absence of such valuable plant food. Not only does the plant cane derive a benefit from the vines ploughed under, but the stubble has more vitality, and the ratoons reap the benefit of the available plant food remaining under and around the stumps. By ploughing under the vines, increased bacterial action is prolonged in the soil for at least two years, after which if the land is again planted in corn and peas, recuperation will result if the rotation is adhered to strictly.

The pea-vine crop ploughed under is of such value to the growers of cane in Louisiana that other forage crops should be grown on acres specially treated. After the campaign has commenced, and the cane tops are dry enough to burn, the stubble ridges can be seeded with a mixture of the winter vetch and rust-proof oats, and covered with the disk cultivator. If fertilized the yield in grain should be about equal to the corn crop, which generally follows in the rotation. After harvesting the mixed crop, the land can be planted in pease. The oats will mature in the spring, when the weather is generally favorable for harvesting small grain. The land, having grown two leguminous crops in succession, will be in admirable condition to yield a large plant cane crop, even if the pea vines have to be removed for forage.

Occupying middle ground between ordinary recuperative agents and special manures *par excellence* (those having the major portion of their plant food soluble in water) are gypsum, lime, phosphate slag, etc., and fertilizers leaving their elements in a potential form, such as ground bones, tankage, cotton-seed meal, etc. The gypsum, lime and phosphate slag would act on the humus in the soil and render a portion of the nitrogen available, and tend to correct the acidity of the soil imparted by the partially burned cane tops and prove of particular benefit where cane follows cane. Tankage and cotton-seed meal, animal and vegetable products are very extensively used, being cheap sources of nitrogen and phosphates; but somewhat tardy in their action when weather extremes prevail, as their elements are only liberated by decay, which is hastened by heat and humidity.

The fertilizer industry is growing in magnitude in the different States. There were nearly two million tons used in 1896, valued at about \$38,000,000, a sum which would have been deemed extravagant in the extreme thirty years ago, when the industry was in its in-

fancy, and the users of special manures were regarded as visionary agriculturists. Where soils are made moderately rich by the recuperative agents, etc., there the higher priced special manures, phosphoric acid, sulphate of ammonia, nitrates of potash and soda, and sulphate of potash, can be combined in desired proportions and profitably applied to the fields, not only to hasten growth and maturity, but perfect fruition. When crops are retarded by cold springs and a deficiency of rainfall (as has been the case this season), then the stimulating manures having their elements largely soluble in water play an important part in imparting luxuriance to the stimulated vegetation, and such manures sustain growth better than others, when there is an excess of moisture, as the plant food is already prepared for absorption.

As the cane crop is often retarded by extremes of wet and dry weather during spring and summer, to in some measure guard against climatic effects and insure higher average yields, well drained, friable soils, whether growing plant canes or ratoons (where the stand will justify the outlay), the crops may receive one-third of their plant food in the form of phosphoric acid, sulphate of ammonia and perhaps a limited amount of nitrate of soda (and gypsum to obviate too great concentration) to increase rapid growth in June, July and August, the land having previously been treated with cotton seed meal or tankage, or both, as the mixture is often advantageous. Examine the ratoons, and in many instances it will be found they have already made fifteen leaves of the probable total thirty-five to be developed until harvest. The canes will form about five joints per month for the next three, the period when to secure a heavy tonnage stalk elongation must be very rapid. Where the stand is sufficient to secure twenty tons of cane per acre under average conditions, an increased elongation of three inches of stalks will yield an extra ton; therefore if the fields are fertilized to secure an increase of five tons per acre there will be an additional length in stalks of fifteen inches over the fields. We are informed that such elongation will remove 3.4 pounds nitrogen, 2.17 pounds potash, 1.48 pounds phosphoric acid, and .8 pound of lime per ton of cane.

The soil being rich in potash and lime, it may be necessary to add only the nitrogen and phosphoric acid, 18 pounds of the former and 7.40 pounds of the latter, to secure the five additional tons per acre. Instead of 18 pounds substitute 25 pounds at, say, twenty cents per pound, and instead of 7.40 pounds of phosphoric acid add 10 pounds at ten cents per pound—liberal figures for costly chemicals, and the outlay will be \$6 per acre or \$1.20 per ton. As the incidental expenses for the cultivation, cutting, etc., would be incurred for the smaller tonnage yield, the only charge per ton for the extra cane should be for transportation, loading and delivery on the carrier, say eighty cents, making it cost \$2 per ton in transit to the mill. Allow \$1 per ton for manufacture; total, \$3. Estimate the output at the low figure of 160 pounds per ton, and the sugar at three cents per pounds, \$4.80, a profit of \$1.80, or \$9 per acre,

a handsome return on the investment of \$6 per acre for nine months. A study of the agriculture of the tropical cane in Louisiana would seem to indicate that to secure high average yield of sucrose recourse must firstly be had to the indispensable recuperative agents, then the valuable fertilizers, tankage and cotton seed meal, can be used extensively, and lastly the application of special manures to counteract in some measure climatic extremes and augment the coefficient of purity of the juice and maturity.

THOS. MANN CAGE.

Terrebonne, La.

Sugar Producers' Scare; Acquisition or Annexation.

Editor Louisiana Planter: It will be seen by reading the following excerpt from the *German town Telegraph*, a standard agricultural journal in close touch with the administration, the data of which is secured from the United States Agricultural Department, that the annexation of Cuba or the Philippine Islands would be the hardest blow to the cane and beet sugar industries in the United States that the government could possibly strike, and would result in destroying these home industries. We quote from the *Telegraph* as follows:

The question as to the disposition which is to be made of the Philippine Islands, which we now hold, and of Cuba and Porto Rico, which we soon will hold, is one that is being much discussed here, and is one which is of no little interest to the producers of this country. A large number of newspapers of the country and many statesmen here are asserting that we should permanently occupy those territories as parts of the United States. We have won the Philippines fairly in war, they say, and we should retain them as American territory.

It is further stated by those claiming to represent a far-sighted policy that the time has arrived when this country should emerge from the shroud in which it has persistently and consistently enveloped itself since the establishment of the government and take its place with other powers of the world in holding foreign possessions. We should retain, they say, the Philippine Islands; the interests of the United States demand it. We are endeavoring to extend our foreign trade; to widen our markets abroad; to search out new fields for the products of American farms and factories. To do this we must have a large merchant marine; to protect this merchant marine we must have a large and well-equipped navy; to maintain this navy we must have possessions in remote parts of the globe as bases for supplies and coaling stations.

Much of the same claim is made by this class of people with reference to Cuba and Porto Rico. They will soon become ours by right of conquest, and will be taken to satisfy the cost of the war brought about through Spain's cruelty, corruptness, and incompetency to govern. Granting this to be the case then, for the sake of argument, our retaining possession of either the Philippine Islands, or Cuba, and Porto Rico, what would be the result to agriculture in this country?

Consider Cuba first, she is nearest to our doors. In the first place Cuba can raise enough sugar to supply the United States when its population is twice as great as at present, and with free sugar from Cuba, our beet sugar industry would be knocked into a cocked hat. Not a beet sugar factory in the United States could do business. Sugar, it is stated at the Agricultural Department, can be raised in Cuba for one cent a pound and at a profit, and when planters there can get two

cents a pound for sugar laid down on ship board, they can amass quick fortunes. The soil of the island is wonderfully fertile, and six or seven tons of sugar, it is authentically stated, can be produced from one acre. This low cost of production is due largely also to cheap labor, composed chiefly of blacks who work for very low wages, who are easily satisfied and have few wants. All tropical and semi-tropical fruits which are now grown in Florida and Southern California at a profit can be produced so much cheaper and more easily in Cuba, with the improved methods which will be introduced there, that growers in this country would either go out of business or migrate to Cuba.

The same reason applies to tobacco. We have recently given a good deal of attention to raising the fine grades of tobacco in this country, especially in Florida. This is profitable now under present conditions, but with the richer soil of Cuba and its cheaper labor, the Florida industry would vanish. With the annexation of Cuba or the Philippines, our farmers would have to remain content with raising 10-cent tobacco, while Havana tobacco sells as high as \$2.50 per pound, and Sumatra, which can be duplicated in the Philippines, brings \$4 per pound.

CHEAP LABOR A GREAT FACTOR.

The population of Cuba is supposed to be a million and a half; that of the Philippines, seven millions. Add to these Porto Rico, and the aggregate is in the neighborhood of ten million souls, a large portion of which can be classed as among the cheapest labor, women and children doing regular labor in the field. With this labor America can not compete. It is clear, then, that if these islands are annexed and become the permanent property of the United States, with their products grown by this cheap and easily satisfied labor admitted free into our ports, the farmers of the United States must give up the idea of attempting to compete with them in any of the articles and commodities which they can produce, and that we must endeavor to offset this by selling them our food products and manufactured articles.

These statements may be taken as official, and indicate that the Hon. Secretary of Agriculture, Mr. Wilson, is in nowise in favor of annexation of these Spanish islands, teeming with cheap labor and cheap products. It is highly advisable that the cane, beet, tobacco and fruit industries in the States join forces and fight the annexation party to the bitter end and to the last ditch. The laboring people, working men and women, should, through the labor unions, unite in solid phalanx against this dangerous doctrine of annexation, cheap labor and ruin to home industries.

ERIN.

The Use of Lime and Sulphur in Sugar Houses.

[Discussion at the meeting of the Louisiana Sugar Planters' Association, Thursday, June 9, 1896.]

Judge Emile Rost in the chair.

Prof. R. E. Blouin—I wish to show a method, which I recommend, to determine the acidity and alkalinity of juices, when the clarification has been carried to the proper point. I use for that purpose an acid and alkaline solution, equal volumes of each neutralizing the other. I have here some cane juice which was preserved at the station, and in determining its acidity I will take a definite volume of it—ten cubic centimeters—and dilute it with water, about five times its own volume, and use phenolphthalein, which is dissolved in alcohol, as an indicator. I will put a few drops of alkali in the juice, which is acid, and determine from that the number of cubic centimeters of acidity.

By reading this burette (indicating) you will see exactly the quantity we have here, which is 32.6. By running this into the acid juice, the phenolphthalein, as soon as the alkaline solution is run in, turns a red color. This is destroyed on shaking by the excess of acid in the juice. By continuing the amount of alkali this excess of acid is neutralized to the point where it changes to a slightly red color. One or two drops more perhaps a distinct change in the color of the juice is observable. You will notice the change is very apparent. In that way we can determine the acidity of the juice, and from that calculate the amount of lime necessary to neutralize it. In case lime alone is to be added, or in case the juice has been previously sulphured, we can determine the total acidity of both juice and added sulphurous acid, and then by calculation or referring to a table, see exactly the quantity of lime necessary to neutralize this to insure the quantity necessary in clarification. Now, in case in making an estimation of acidity we fail to determine where the change in color occurred, but added excess of alkali, we acid neutralize that excess by running in an acid solution of the same strength, and deduct from the total amount of alkali used the amount of acid which was required to neutralize the excess of alkali.

Mr. John Dymond—How do you know that that is now alkaline?

Professor Blouin—By the color of the juice. This is the indicator.

Mr. Dymond—Do you make color the test; is that the conventional plan of determining—by the color?

Professor Blouin—Yes, sir.

Mr. Dymond—Then why should not the sugar expert, who is thoroughly familiar with the color of juice, determine the lime point by the color of juice?

Professor Blouin—Because the phenolphthalein here is one of our most delicate indicators of acidity and alkalinity, whereas cane juice is not. It would not produce this color.

Mr. Dymond—That is the color—that is your determining test? Now, then, the experts in sugar manufactures use color, but they take the color of cane juice without chemical modification, and they think, with their long experience in that direction, that they have an appreciation of the delicacy of the color that enables them to determine the lime point as well as by any other process. It is color, after all.

Professor Blouin—That we have not found practicable at the Experiment Station. To tell, or to distinguish, the change in color of cane juice between one cubic centimeter acidity and one cubic centimeter of alkalinity, or one cubic centimeter by color, is entirely impossible with us. By running in the acid here you neutralize the alkali and destroy that color immediately; and then another objection, Mr. Dymond, to that point would be to determine the acidity here. We can determine exactly the amount of lime to add to this juice, and it is only a question of a few seconds. We would not have to guess at the amount of lime, but know exactly the amount to add.

Mr. Dymond—But it is done by the color. You know some people are color blind and their perception is not keen. You see I am a little old-fashioned, or rather may believe in old-fashioned sugar manufacture.

Professor Blouin—The color here is so distinct that almost the blind could see it. Here I have a little lime paste—here is some lime water on the surface; that color can be very readily brought back with lime water alone.

Captain Pharr—Let me ask you a question there to see if I exactly understand your proposition. You add the alkali there until you give it the color. Then you add the acid to restore it to the color of cane juice.

Professor Blouin—We do that in case we run in an excess of alkali. If we did not know the point where the acid was neutralized.

Captain Pharr—Then you add the other ingredients to bring it back to the point?

Professor Blouin—Yes, sir.

Captain Pharr—And from that you calculate just the amount of lime that is necessary to bring it to the proper point? Is that your sum?

Professor Blouin—Yes, sir.

Captain Pharr—I think I understand it that way.

Dr. Stubbs—In our sugar house we sulphur and then measure the amount of that acid added by process. Suppose we sulphur to 5 cc. We know exactly how much lime to add to each clarifier. It is determined by that process there.

Professor Blouin—By adding this amount of lime you will see the change.

Captain Pharr—That is exactly the same thing; I understand it.

The Chair—You stated something about milk of lime. You don't say whether, by this experiment, milk of lime had the same effect upon this alkali matter that the alkali had in this burette. Is that the same juice you used a few moments ago?

Professor Blouin—Yes, sir; by applying an excess of lime you get this color. If I run an acid in there to neutralize this alkalinity, the color will be destroyed.

Member—That process there is to take the place of litmus paper?

Professor Blouin—Yes, sir; it is a more delicate test.

Captain Pharr—That process is to take the place of guessing?

Professor Blouin—Yes, sir.

Captain Pharr—That is what I thought.

Mr. Dymond—Is it practically any better?

Professor Blouin—By this means you put in the exact quantity of lime necessary. Frequently the sulphuring has been carried to 7 per cent. instead of carrying to 5 per cent., and the same amount of lime is used in each case. This detects in a moment how much sulphur you add, and the variation carried in there is never more than, say, $1\frac{1}{2}$ to $2\frac{1}{2}$. Frequently we encounter this variation during the day, and the same amount of lime is added to each clarifier, and the result is we have the juice over-acid or over-limed.

Professor Stubbs—This is a very simple operation; there is nothing new about it. It is just the application of an old principle to sugar manufacture. Every chemist in a sugar house knows this; and as Mr. Dymond remarked here, this is a most excellent way of letting your sugar maker know if there is too much or too little lime; but the difference between over-liming and underliming requires an expert eye to tell exactly.

Captain Pharr—Is Baumé a correct measure of lime?

Professor Stubbs—Yes, sir, for lime, if you keep it well stirred.

Mr. Crozier—Some lime takes a great deal more water.

Professor Stubbs—Not if it is pure lime, Mr. Crozier. If you mix slacked lime (that is, $\text{CaO} + \text{H}_2\text{O}$, one part of lime and one part of water, or what we call hydrate of lime) with water you will obtain what you call milk of lime; then the Baumé spindle comes in to tell the strength of this mixture.

Mr. Churchill—I am glad the sugar experiment station has taken up this matter of liming and sulphuring cane juices by actual chemical test in the sugar houses. It is of great importance to know just how much sulphur we have added or ought to add, and just how much lime we should use to neutralize this sulphur. By the method which Professor Blouin has just described, we can do this to a nicety without any particularly skilled labor in the sugar house. While in Nebraska last summer, at both Norfolk and Grand Island, I saw this testing being done by the ordinary workmen of the sugar houses. At each liming tank, the workmen had a set of burettes and testing glasses by which they gradually gauged the amount of lime that was added, and then at each carbonating tank the workman there had

similar glasses and apparatus by which he tested the amount of carbonic acid gas added. This was the case for both the first liming and the second liming, the first carbonating and the second carbonating. About five years ago, if I remember right, relatives of mine in England, among other books, sent me a small volume entitled "Dr. Shier's Method of Accurately Testing Cane Juice for Clarification." In this book the exact method that Professor Blouin has just spoken of is described as having been practised in the English provinces at that time—about 1875—when the book was published. I will say further, that in my travels throughout Louisiana, in the interest of the Provident Chemical Works of St. Louis, I have found two or three houses where this method is in daily practical use. In one of them they employ two boys on a watch. By means of the burette, and a standard alkali solution, they determine the exact amount of lime that must be added. These boys know absolutely nothing of what they are doing. They find out how many cubic centimeters of alkali it takes to neutralize a certain specified amount of the cane juice, and then from tables already prepared direct the clarifier attendant to put in so many cups of lime. In this manner every clarification of juice is brought to the same identical acidity or alkalinity. The sugars produced by this method are absolutely uniform. They have no trouble in making sugars to sample. By the old method all uncertainties of "gauging by the eye" are done away with. There can be no uncertainty about it. If this method is uniformly adopted, I hope to see our "sugar makers" done away with. Gentlemen, it is surprising to me, the ignorance of these men. I might mention here that one of them last year told me that he would prefer to use litmus paper to clariphos, but, as a matter of fact, he said he did not think much of either one. Another one told me that when he got ready to use an acid to clarify with, he would use alcohol; that of all acids he thought this was the best. I have an idea that he thought it was best internally; and this man was in absolute charge of a sugar house belonging to a progressive firm.

Mr. Dymond—Since the introduction of the Cambray process at Governor Warmoth's, and the manufacture of white sugars thereby, and the introduction of the Drost & Shultz process at Evan Hall and Belle Alliance, both of which make white granulated sugar, where sulphur is largely used, we are taking a very keen interest in sulphur; and we learn there is a disposition in this State to use sulphur in large quantities; and it is said the results are satisfactory, or, in fact, are more than satisfactory. The results are desirable, and those who are adopting these methods are disposed to continue. Now, if that be the case, if we ought to use these larger quantities of sulphur—if we ought to use larger quantities than we have been using, if we want to reach the maximum limit reached by plantations, we should like to be told that in some forcible sort of way so we will be able to do it. Mr. Deming spoke about the practical impossibility of getting too large an amount of sulphur in the cane juice, and we are told in one of these papers that one gallon of cane juice, I believe, will take some thirty-five gallons of sulphur dioxide gas.

I remember that Mr. Communy, the introducer here of the Communy sulphur apparatus, held that one gallon would take sixty gallons of sulphurous acid; so it seems to have a wonderful power. How far shall we go with that? Shall we go much farther than in the past? Nearly every sugar planter goes by a process of dead reckoning. From any established point he endeavors to do that which is a little better; he strives to do better until he arrives at a degree of excellence that bears a favorable comparison with the work done by his neighbor. Progress has resulted throughout the whole State, which, without the use of a large quantity of sulphur, would have been less apparent than

now. A distinguished gentleman ten years ago was advising us not to use sulphur at all, and now we have learned to bridle this injurious agent; we hold him down and make him very useful to us. We have learned to use sulphur in moderate quantities. With reference to the Cambray or the Drost & Schultze process, these processes recommend themselves to us, and we are led to inquire now as to what we shall do. Shall we all force the fumes of sulphur through the juice by atmospheric pressure? I believe, generally, that in the beet sugar countries they use sulphur in that way. We generally secure a current by a vacuum at the other end of the line, whereas the Germans force the sulphur with a current of atmospheric air. Now, it would seem to me wise to bring out these points in full and learn the latest ideas on the subject; we shall make in Louisiana a very centre of observation. There are many who are now waiting for this data, awaiting for the results of this discussion this evening. They are anxious to know what to do about sulphuring.

The Chairman—There is doubt about the importance of this subject, and I think that it would be only proper, in view of the number of scientists present this evening, that they should give their views on the subject. Among the scientists present I would call on Professor Wilkinson.

Professor Wilkinson—I would say that as a result of my experiments I found that the larger the quantity of sulphur used the better the clarification obtained. I have forced it under pressure and I have continued its use until I would get as perfect coagulation with the sulphur as with lime and sulphur together. I have had associated with me as a student Mr. H. E. Treadeaux, who is a practical sugar maker, and he tells me his best success has always been to sulphur if possible until he sees this coagulation take place. In turn we have found similar results through heavy sulphuring on a small scale in our laboratory at Tulane. I am of the opinion that the effect obtained by repeated sulphuring at some of our sugar houses could be largely reached by allowing the juice thoroughly saturated with sulphur dioxide to remain for a longer time before liming.

Professor Stubbs—I know, in his remarks just now, Mr. Dymond alluded to me. Now, I have visited a large number of sugar houses, and in many I found they worked exceedingly acid juice—in many instances almost as acid as the juice is now made in sugar houses. I condemned then the use of sulphur, on account of the large inversion caused, and I have always advocated, and do to-day, the working of all juices neutral. I suppose in the last two or three years we have performed over a thousand experiments; not, as Dr. Wilkinson says, in the laboratory alone, but in sugar house work. Before proceeding let us stop and inquire what sulphur does for us. I think I can explain what sulphur does for our juice. It has three effects. First, it bleaches; it bleaches by taking away the oxygen from organic matter. Second, it unites with water, and forms sulphurous acid, which, when mingled with the juice, suspends the active activities of the ferments. It is therefore an antiseptic. Third, as Mr. Blouin brought out to-night, it partially precipitates the albuminoids; it also has a slight effect on the gums.

These results are frequently obtained by the use of only one cc. of sulphur dioxide to ten cc. of juice, and two to three cc. accomplishes all the chemical changes which can be induced by use of sulphur. But the efficacy of heavy sulphuring can be found in the immense precipitate which is formed by the large quantity of lime added to neutralize the excess of acid. This precipitate introduces a mechanical effect, and in its subsidence carries a large quantity of impurities suspended in the juice. Similar results accrue from heavy carbonatation.

Experiments conducted with the microscope, with graduated lines, capable of counting

approximately the number of particles of sediment in a drop of juice, have shown that after a moderate use of sulphur and lime, sufficient to perform the necessary chemical changes, that after clarification, especially when white sugar be desired, depends upon the removal of the very minute particles of impurities (dirt, etc.) which remain suspended in the juice.

These experiments have shown that several filtrations—long settling in specially designed settling tanks, or a heavy precipitate of any character, all aid in removing these suspended impurities from the juice. Many of the so-called improved processes of working juices find their largest efficacy in the numerous filtrations required rather than chemical action on the juices. Settling tanks and filter presses will frequently accomplish similar results. Heavy precipitates by changing the suspended impurities aid greatly in clarifying juices, and to this quality may be assigned the largest benefit from the use of excessive sulphur. This excess of sulphur requires an excess of lime to neutralize, and the precipitate produced is a costly one. Several inventions have proposed preparations of sand, earth, etc., as substitutes. We have given you chemically all the reactions that take place through the use of sulphur and lime. The remainder of benefits by using them in excess is a formation of a heavy precipitate which goes to the bottom, carrying with it suspended matter. There is another way of illustrating this; Mr. Deming remarked in his paper, that it was a well-known fact that all our canes carried with them a large quantity of our soil, especially in wet weather, and your microscope will show that it is present in particles which are infinitely small. That stuff becomes suspended, and it is with great trouble that we get it removed. As soon as we add this excessive amount of sulphur, followed by an excessive quantity of lime, a precipitate is formed which will entangle many of these fine particles of earth and remove them. Our soils contain a large proportion of particles whose sizes vary between .005 to .0001 of a millimeter and are invisible when in suspension in the juice, unless viewed through a good microscope. In concentration many of these particles flocculate, and by settling or filtering the syrup, may be removed.

We have used extensively the microscope in testing these questions and beg to say, in passing, that settling in proper settling tanks from one to one and one-half hours has secured cleaner juice than was secured by any of the numerous filter processes, or by using any amount of sulphur and lime. Sulphuring so that juice will show 5 cc. of acidity to every 10 cc. of juice and neutralizing with lime has given in practical sugar house work all the benefits that could be secured by using double or triple these quantities. In fact less quantities of these substances can be used with great efficacy provided the juice is thoroughly cleansed afterward either by settling or filtration.

If we can adopt a policy by which we can get our juice to settle and not filter, because we have demonstrated the difficulties of removing the very small particles by filtration, the results obtained would be more satisfactory.

In a filter press we always find some very small particles that pass through the pores of the cloth, but when we settle, thoroughly settle, we eliminate them.

Mr. Churchill—I believe sulphur is a very good thing in its place, and sulphur has certainly made great strides in the sugar industry, though in one house where it was used extensively year before last it was not used at all during the past year, and in another house where it was used extensively last year it will not be used this year; but there is something which Dr. Maxwell has proven by his work at the experiment stations in Louisiana and Hawaiian Islands that is much superior to sulphur in any form. I refer to acid phosphate,

or clariphos, as it is known in the trade. It may appear a little alien to the subject to mention the matter here, but inasmuch as the question of clarification of juice has come up I believe it is entirely in place. Listen to these comparative results obtained by Dr. Maxwell in his work in Louisiana, which is described in the paper he read before the Louisiana Sugar Planters' Association some few years ago. Experiment No. 1: When using sulphur and lime there was precipitated 2.6 grammes, of which 1 per cent. was organic matter, the balance, 1.6-10 per cent. was mineral matter. Experiment No. 3: With lime and clariphos, the total precipitate was 5.2 grammes, of which 2.48 was organic matter and 2.72 was mineral matter. Now, gentlemen, the main point of clarification is to remove the organic matter. Which of these would you prefer? Sulphur, which removes 1 per cent., or acid phosphate, which removes two and forty-eight hundredths? It is a well-known fact that by removing all organic matter we obtain a greater yield of sugar, inasmuch as organic matter retards crystallization. In summing up his work he says about as follows: Sulphur does not appear to improve the purity of juice, which is due to the fact that sulphur as generally used in Louisiana does not remove anything, but as a matter of fact forms soluble compounds which remain in the juice, and accumulating in the after products retard crystallization and increase the yield of molasses—sulphur, as a general thing, forming soluble salts. On the other hand the use of clariphos with lime, according to all these experiments, yields the best results. The improvement is caused by the actual removal of a large amount of organic matter, and also by the clarifying agents mutually removing each other in the juice as an insoluble phosphate of lime. Another advantage that he points out is that the precipitate in the form of a filter-press cake, or sediment, by the amount of phosphate it contains, is a very valuable fertilizer. Another item that he brings out is that the brightness of the juice is greatly lost when brought back to neutrality, and the color required when making white sugar can only be maintained with a degree of acidity which is liable to cause a great loss of sugar by inversion. Clariphos, or acid phosphate, on the other hand, he points out, acts with great benefit on the coloring matter, more thoroughly precipitating these bodies than any other known acid, and causes less loss by inversion.

Professor Stubbs—In reference to what Mr. Churchill has said, I would say that the most perfect clarification, in fact the ideal clarification, is produced by acid phosphate—the only disadvantage being in regard to the cost of the stuff. We found, too, that in order to operate it successfully it was best to use two sets of clarifiers, one for liming and one for adding the acid phosphates.

Mr. Churchill—I would say, gentlemen, that undoubtedly the best way to use acid phosphate would be like Dr. Stubbs has just said—by means of two sets of clarifiers, but I have seen it used, and successfully used in dozens of sugar houses in Louisiana, in the same clarifier that the lime had been added in. The method of using it is about as follows: The juice was limed to the alkalinity that was desired, and heated, and brushed of scums. The acid phosphate was then added in quantities found most suitable. Steam was turned on, and the whole thing brought just to the point of boiling—just enough to mix it thoroughly. The clarifier was then brushed again and allowed to settle. The settlement was very rapid, and a much more brilliantly clarified juice was obtained. Of course, as Dr. Stubbs has just said, two sets of clarifiers are the best, but, from a number of years' experience in the matter, I do not consider it necessary.

The Chairman—It would seem, perhaps, that the increased use of sulphur might also

depend on the various processes which have been adopted. We have the Cambray process, also another process—the Drost & Schultze—with both of which white sugar is made. Now the chair is under the impression that double sulphuration is used in one of these processes. The chair understands that Mr. Jesserun is here this evening, who has charge of the Magnolia plantation and is familiar with the Cambray process. The chair would call on him to tell the association what he knows about the Cambray process.

Mr. Jesserun—The Cambray process, as used on Governor Warmoth's plantation, is as follows: Lime is brought into the juice in an excess, then sulphur is introduced—this lime being precipitated to a certain alkalinity. Heat is turned on about 180 deg. Fahr., and the entire contents of this clarifier is sent through a mud press. The filtered juice coming from the mud press is again treated with sulphur in another tank, where the entire alkalinity is reduced and brought to a slight acidity. This juice again passes through a gravity press, and from there it goes to the evaporators, where it is concentrated into syrup. The syrup from the evaporators, before going to the syrup tanks, is again filtered.

The advantage of the Cambray process lies in the large amount of lime and sulphur used, for it is a known fact that sulphur and lime both are the only clarifying agents used so far with success in the manufacture of sugar. The use of a large amount of sulphur has a triple effect. It bleaches the juice, it clarifies the juice to a certain extent and it breaks up the ferments contained in the juice—hence, prevents fermentation in the after products. The action of sulphur is not as much beneficial to the first products as it is to the after products. It makes the first product, while boiling in the vacuum pan, a short, nervous and energetic boiling, giving a better class of sugar than so far obtained with any other process, the after products yielding more sugar and running freer in the centrifugals, being of a better color than any other after products. The advantage of the Cambray process also lies in the triple filtration enabled. Formerly we could not filter our syrups, but with this process syrup is filtered at 30 deg. Baumé. We obtained 200 pounds of total sugars, the after products yielding from our cars for seconds 955 pounds and for thirds 755 pounds; a full charge in the centrifugal being used.

Mr. Soniat—How low did you reduce your molasses?

Mr. Jesserun—Our molasses was reduced to 28 sucrose.

Mr. Dymond—I would ask Mr. Jesserun whether the pounds obtained was due to better clarification?

Mr. Jesserun—If the better clarification would not count it would be just as well for the sugar planter to take a raw juice from the mill or battery and concentrate it immediately into syrup, granulating it into the pan.

Mr. Dymond—Are you still using the process?

Mr. Jesserun—We used it until the latter part of the season. I am sorry to say that there exists in some Louisiana sugar houses conditions which ought not to exist—so-called sugar makers and engineers, who impose on the proprietor by giving their views about things of which they have not the least idea, causing him to make changes accordingly. We made 155 pounds of first sugar to the ton of cane at the end of the season, which I attributed to the bad clarification: bad boiling in the vacuum pan.

Mr. Dymond—What extraction did you get?

Mr. Jesserun—We got 48 per cent. of the sucrose, being equal to about 88 per cent. extraction.

Mr. Dymond—In Demerara some twenty years ago they made a dark sugar for the American market, and with a large crystal. I remember this sugar coming to this country. Mr. Sherman was Secretary of the Treasury at

the time, and he condemned this sugar as fraudulent, while they there held that the sugar was made in the ordinary way, by heavy liming. I heard at the time that they returned the skimmings, but it was done in such a way as to give the sugar a very dark color. They called it black sugar for the American market. It tested 96 or 98, but not above 13 in color. Now the inquiry that I raised a moment ago as to whether or not we could produce 98 test sugar that way—if we can get an increased yield, why then had we not better do it? If this white sugar is going to cost us more than any possible gain therefrom, then we had better apply a process that is not quite so refined as this. Shall we make 98 test, whether it be orange color or would it be better for us to strive for white sugars. If these gentlemen who have studied this would inform us, would give us their conclusions, I am sure they would be considered with great respect.

Mr. Kirchoff—I believe Mr. Dymond has reference to the trials of the Demerara case in Baltimore. I believe at that time a brother of our late Mr. Wallis, Mr. T. Wallis, had charge of the investigations. Some 800 bags were shipped from Demerara to Baltimore. The government would not pass on the sugar on account of it being, as they claimed, artificially colored. The point brought out by the experts from Demerara, as well as by Mr. Gamet, was that the sugars were artificially colored, but not with a view of defrauding the government; that this coloring was done in the pan after the sugars had been thoroughly grained. Mr. — was called in the case to testify in reference to the sugar. Well, the point was this: the juices were perfectly clarified; the coefficient of purity was got as for perfect clarification, and the color of the sugar was got by introducing sulphuric acid into the vacuum pan. On this point I would say that we should endeavor in the sugar house to clarify our juices as nicely as possible; in other words, as high as we can get, and then give the color afterward, in the centrifugal, by washing.

In the vacuum pan this can not be well done. Secure the highest possible coefficient purity, and then give it the color, make the color yourself; not depending upon coloring all sugars in the vacuum pan. Color is secured with the removal of the impurities. Remove all impurities, as every per cent. of impurities in the juice will prevent an equal per cent. of sugar from crystallizing.

Captain Pharr—I think the question raised by Mr. Dymond is very pertinent. You gentlemen here, I think, have answered it, and Dr. Stubbs, I think, has corroborated him. With the better clarification is the better yield. I have understood that always. That has been my understanding of the matter, to get perfect clarification you would get a good crystallization, and that the impurities prevented the crystallization. I do not consider a large use of sulphur as detrimental. I am glad to so understand it. I have so understood it in the past. I am using the Cambray process this last year, and in the main it has been satisfactory in that this last year I have made sugar which I was not ashamed to put my name on. For years past I followed my friend Dymond's advice. I used the lime process, and I made such an ugly sugar that I was absolutely ashamed of it; my second products I could not work, and my thirds I threw away.

Mr. Kirchoff—I would like to ask you what the difference in coefficient was between ordinary clarification and the Cambray?

Captain Pharr—Well, sir, I don't carry my sugar house in my head, so I can not give them to you. Possibly my son, who is here, might give them to you. They were very much better, sir, and my yield was better.

Mr. Crozier—By increasing the quantity of lime on Mr. Kock's place, he increased his sugar 12½ pounds.

Captain Pharr—Let me ask you a question, sir. Are you not in the lime business? [Laughter.]

The Chairman—If there be no further discussion on the subject, the next thing in order would be the selection of a topic for discussion at the next meeting—the July meeting—which will be the last during the summer season; and I hope, gentlemen, that there will be as good attendance at that meeting as there is present here this evening.

Mr. Dymond—I would propose as the subject for the next meeting "The Best Method, or the Best Type of Boiler Setting for the Economical Burning of Bituminous Coal." I merely offer that as a suggestion; perhaps some other subject might be offered by some of the members present.

[No different subject being suggested, it was the sense of the meeting that the above be the subject for the July meeting.]

The Chairman—The next thing in order, then, is a motion to adjourn.

Mr. Churchill—Before adjourning, Mr. Chairman, I would like to request that this method of clarifying cane juice, as described by Professor Blouin, be published in detail in THE PLANTER. I consider it one of the most valuable suggestions ever brought out by the Louisiana Sugar Experiment Station, and I hope to see it generally adopted in Louisiana sugar houses. By this method, as stated before, there can be no uncertainty about what you are doing or about the kind of sugar you want to make. The cost of it would hardly be missed. Any intelligent boy 12 to 16 years old can operate it.

Dr. Stubbs—I would state that the method described will shortly be published in bulletin form. It is the intention of the station to issue it shortly, and it will show the cuts of the instruments given, and all details of operation shown in order to make it interesting to planters.

Mr. Churchill—Could not this article, with a cut of the apparatus, be copied from the bulletin and published in THE PLANTER? I know it would be of immense advantage.

Mr. Dymond—This could be done, just as it has been done heretofore for a number of other planters.

There being no further discussion, the meeting adjourned.

The Future of Cuba.

When a gentleman possessing large property interest in Cuba sought an interview with the president the other day for the purpose of submitting to him certain considerations touching the policy to be adopted in re-establishing peace and order on the island, he was informed that it was time enough to talk about crossing a bridge when it was reached. As a matter of fact we are at the bridge already. The question of whether we shall provide arms and ammunition for the Cuban insurgents is one on whose answer must depend the whole future of the relations of the United States to the people of the island. The significance of that fact has already been recognized by the leaders in both branches of Congress, and it is beginning to be appreciated by those in administration circles who have time to devote serious thought to the march of events. The comparative uselessness of the insurgents as military allies has been pretty clearly demonstrated; but it is not so generally recognized that it might prove a great folly to take any step likely to lead, by a process of natural gradation, to the placing of the control of the future destiny in their hands. The final redemption of Cuba from its chronic condition of civil war is not to be accomplished by making the success of our arms appear as the victory of a faction, or by inaugurating the

reign of peace under conditions ripe with the possibility of interminable strife. The first body of United States troops to plant our flag on Cuban soil will carry with them the potentiality and the promise of such regeneration for all the institutions and activities of the island as can be accomplished by no other agency or influence save our own. To restore peace in Cuba means a good deal more than to compel Spain to haul down her flag. It should mean the immediate disarmament of every combatant on the island, whether insurgent, Spanish regular, volunteer or guerilla, excepting only those of the army of the United States.

In the highest interests of peace, it means the relegation of the machete to its legitimate purpose as an agricultural implement, and the final and absolute abandonment of the trade of brigandage by all who have lived on its fruits before or during the rebellion. It means the exercise by the victors of the same noble clemency as followed the surrender at Appomattox—a clemency which shall give to the peasants who have been fighting the battles of Spain free opportunity to follow on the island, if they so desire, the peaceful pursuits from which they were taken at home, and which shall respect the property rights of the land-owners who have been avowed Spanish partisans, as scrupulously as those of American citizens who have invested their money in the raising of sugar or the mining of iron ore in Cuba.

It will save future disappointment to have the fact clearly apprehended now that the Roman peace which should attend the victory of our arms in Cuba is something which the of our arms in Cuba is something which the insurgent leaders can but imperfectly understand, and for which they may have but scant respect. It may save much future wrangling and recrimination, if the admission is frankly made that, for all practical purposes, the Teller amendment which was embodied in the joint resolution approved April 20, must be interpreted in a sense somewhat different from that which its author intended it to bear. The joint resolution authorizes and directs the President of the United States to intervene to stop the war in Cuba, and for the purpose of establishing a stable and independent government of the people therein. The self-denying ordinance which forms a part of it reads as follows: "That the United States hereby disclaims any disposition or intention to exercise sovereignty, jurisdiction, or control over said island, except for the pacification thereof, and asserts its determination, when that is accomplished, to leave the government and control of the island to its people."

It will take the people of Cuba, as we understand the phrase, some time to find out what they want. We have made ourselves the judges of what they need, and have accepted the responsibility of guaranteeing for them the blessings of civil order and equal rights. These are things which, according to the meaning that we attach to them, the people of Cuba have never enjoyed, and which there is every evidence that, left to itself, the insurgent government could not or would not immediately

establish. With any obligations, financial or otherwise, which that government may have contracted during the progress of its struggle with Spain, the United States can have nothing to do. The people of Cuba may assume these if they like, but we must give the people of Cuba time to understand, first that they are perfectly free to choose their own form of government, with all its contingent obligations, and next, that they can have all needed opportunity for mature deliberation and discussion of what may be best for their future. The machinery for the ordinary functions of civil government still exists on the island, and there is no possible reason why we should instantly disturb it. With the restoration of peace, the familiar agencies of that government should be permitted to resume their course, with a change of masters, indeed, but with no universal change of personnel. The corps of Spanish officials in high places would, of course, be disbanded; the local civil guards, firemen, petty justices, and the like, are all the necessary adjuncts of city and village government, in short, need not be disturbed if they loyally accept the new regime. We know little of the people of Cuba, and they know still less about us. It will take time for both of us to understand each other, and until we do the flag of the United States should continue to be the emblem of sovereignty on the island, exercising a provisional protectorate.

But if that is to be the line and scope of our policy in Cuba, and it is difficult to conceive of any other, it is plain that the fact can not too soon be made known. We certainly can not afford to substitute one reign of terror for another, or to leave the people of Cuba to reconstruct, under the most adverse conditions, the shattered fabric of civil society. It is needless to disguise the fact that the ranks of the insurgents were largely reinforced by bands of simple banditti, who will return to the practice of systematic plunder and blackmail, unless restrained by a power strong enough to command their respect. One of the first steps which our government must take to perform the work awaiting it in Cuba will be to protect the fruits of our intervention against the children of the revolution. It is an open secret that the power of resistance of the insurgents was well-nigh exhausted when we decided to intervene. It is obvious that we can not count on them as allies in striking the death-blow of Spanish rule, and the United States can recognize no further obligation to them than that of securing the freedom for which they fought against such tremendous odds as to involve certainty of failure. The people of Cuba who have the best claim on our sympathies are those who have been ground between the upper millstone of insurgent pillage and the nether millstone of Spanish "concentration." They are a gentle, industrious and law-abiding race, but they are absolutely destitute of education and ignorant of the very rudiments of our system of self-government.

In what passes for the upper ranks of Cuban society there is a large admixture of the immediate descendants of the sugar planters, who, under the system of slavery which finally disappeared only twelve years ago, lived in a

style of reckless extravagance in the capitals of the old and new world. All the demoralization that attends the ownership of men and women as chattels was exemplified to the full in Cuba, and has hopelessly infected the class from which the island might be expected to draw its statesmen and legislators. What latent possibilities of self-rule there may be among the million odd souls constituting all that remains of the people of Cuba can be but vaguely conjectured. It is certain that these will have a chance to assert themselves only after we have established some provisional form of just, liberal and severely impartial rule. There will be no resumption of the wealth-producing activities of the island till it has been made perfectly plain that the security of life and property rests on the most substantial guarantees—that proscription or reprisal is as little to be tolerated as the reimposition of the fiscal duties of Spain. There will be no new birth of energy and enterprise in Cuba till there is a perfectly well assured prospect of its affairs being administered with as much regard to law as if it formed a part of this Union. To attain that consummation may take a longer time than we dream of, but it ought to be clearly understood that our flag must float over Cuba until it has been attained. The right which we asserted to expel Spain for maintaining an insufferable nuisance at our doors carries with it the responsibility to see to it that another Guatemala or Nicaragua is not substituted for the hopeless misgovernment and corruption of the "ever-faithful isle."—*N. Y. Journal of Commerce.*

Sugar at the Florida Experiment Station.

Although the making of syrup was the chief experimental work undertaken, incidentally some attention was given to the process of sugar-making with the object of further developing this domestic industry in the State. It is not to be expected that the home manufacture of sugar can take its place as an important commercial undertaking upon many Florida farms, the capital and acreage required making sugar production essentially a manufacturing rather than an agricultural enterprise. It is believed, however, that conditions of climate and soil, if properly utilized, would naturally place Florida in the lead as a commercial sugar-producing State, and that capital invested in this business in Florida would certainly be more remunerative than is possible in any other part of our country. As bearing on this point, a comparison of the sugar content of Florida cane with the average for the State of Louisiana is important. Dr. Stubbs, director of the Louisiana Experiment Station, places the average for his State at 12 per cent. This amount is somewhat above the average of available analyses, but is adopted as sufficiently high.

Our analyses of Florida cane from eighteen different localities covering the entire State the present season show an average of 15.69 per cent. of sugar, and an average coefficient of purity for the juice of 86.90 per cent. The Louisiana comparison is 12 per cent. of sugar

and a coefficient of purity of 80.50 per cent. A difference of 3.69 per cent of sugar and 5.80 per cent. of purity in favor of the Florida product. There is no question of equally heavy crops in our State, so the superiority of Florida sugar production can hardly be longer questioned.

This bulletin, however, is devoted essentially to the interests of the average farmer of Florida rather than to the consideration of exceptional conditions. So far, therefore, as it can touch upon the question of sugar production it will deal solely with the domestic phase of the industry in the hope of enabling intelligent growers of sugar cane in our State to utilize a portion of the same for more economically and satisfactorily supplying their own home and local requirements. It must be borne in mind that all that has thus far been recorded pertaining to the growing of cane and the making of syrup is equally applicable when the ultimate end in view is sugar rather than syrup, the essential difference being that the process is continued further.

The Spanish moss, double-pan method recommended for syrup is also equally applicable and commendable for sugar.

BOILING FOR SUGAR.—After the syrup stage has been reached, if sugar is desired, great care should be exercised that all danger from scorching or overheating may be avoided. Indeed, the lower the temperature, the less the actual amount of boiling till the density necessary for sugar forming is reached, the better. High temperature and vigorous boiling having a tendency to invert the sugar, and thus prevent crystallization, should be carefully guarded against. Indeed, so important is this fact that the crude iron kettle, with all its faults, possesses some advantage as the finishing receptacle in sugar boiling because of the less surface exposed to direct heat and consequently the diminished danger from over-boiling. After the syrup stage has been reached, as determined by our improvised "syrup-tester," the process should be continued according to temperature for twenty or thirty minutes, at which time the density should have proceeded about one-tenth and the volume of the syrup should have been diminished about one-tenth.

The final test for determining when the proper consistency has arrived does not rest entirely upon density or thickness, and therefore the saccharometer is useless. The test must be the actual crystallization of the sugar. If however a sample of syrup is found to grain and it then be tested with the "syrup tester," and an additional or lower mark be placed upon the stem of the same, this will serve as the safest indicator of the proper time to stop boiling for future runs.

When the syrup has been condensed, as mentioned, it should be removed to a barrel, tub or trough, or where a kettle is used it may be allowed to remain in the same after withdrawal of the fire.

GRAINING.—The condensed syrup is now ready for graining or crystallization, which process will inevitably take place in it, but may be advantageously hastened by stirring the mass while cooling with a stick or wooden

paddle. Not only is the process of crystallization or sugar formation thus hastened, but the quality of the product, particularly its degree of whiteness, is very materially improved thereby. The time which will be required for completing this graining process will depend upon density, amount of impurities present and the relative sucrose or sugar content of the syrup. With reasonable success in quality, the period, however, should rarely continue over one hour, and may be completed in a very few minutes. When the graining or crystallizing has been thus effected the process is, for the time being, at an end.

PURGING.—The soft sugar thus formed is a mixture of sugar and molasses, and the next step in the process is the separation of these two constituents. This is the best and most simply effected by turning the soft mass, the so-called *masse cuite*, into flour barrels, through the bottom of each of which three or four one-inch auger holes have been bored. The barrels filled with *masse cuite* should then be placed on blocks, benches or tables, so that they are raised sufficiently from the floor or ground to allow the placing of a pan, tub, or crock under each barrel for catching the molasses as it runs off. Time alone will now complete the process, the purging going on by gravity without human assistance. It is complete when the molasses has so drained off as to leave the sugar reasonably dry and free from all sticky tendency.

If the process is successful such sugar will be of a light brown or yellowish color, and thoroughly adapted to most domestic uses, and will find ready sale for local consumption, or for refining.

WHITENING THE SUGAR.—The demand of the market and perhaps, unfortunately, of most consumers is for sugar entirely free from all natural cane flavor or taste and perfectly white in color—in other words, the "granulated" form of commerce. This product, however, is the result of the refining process involving the use of complicated machinery and great capital. There are, however, simpler means by which, on a small scale with a moderate expense, the sugar may be so materially whitened as to approach the character of granulated sugar and find more ready sale. The simplest of these methods is one devised by us, but based on a modification of an old process used in the days when loaf sugar was a standard article of commerce. It consists simply in removing the sugar from the purging barrel and placing it in a tub or half-barrel with an outlet at the bottom. The sugar is then covered by a single thickness of common cheese cloth, on top of which is placed a water bucketful of moist clay stirred to a thick paste. The result will be that the sugar will absorb the moisture from the clay and become washed thereby; in a few days' time the sugar will have become so materially whitened as to better meet the popular demands; indeed, will approach in character and appearance the very best product of commercial sugar below the grade of "granulated."

A modification of this method may be advantageously used, based on the practice in

many sugar refineries and in all laundries, viz.: Blue is optically complimentary to yellow and, consequently, where blue and yellow are brought together in opposition, the neutral or white optical effect follows. Consequently, the laundress uses bluing with yellow clothing to make it appear white, and the sugar refiner uses ultramarine upon his yellow sugar, whereby it appears white. Ultramarine is wholly harmless and inexpensive, and can be secured of most druggists. If the water, therefore, that is used for mixing with the clay is very slightly blued by the introduction of a little powdered ultramarine the effect is an apparently white sugar really no purer or whiter than the yellow article, but which meets the public demand and sells for a better price.

YIELD AND RETURNS FROM SYRUP AND SUGAR.—The final value of any crop must rest upon its commercial returns, whether the same is actually placed upon the market or is used for home consumption, since in the latter case, expenditure is prevented and "a penny saved is a penny earned." In the particular case of sugar cane, however, it has been, as already expressed, my desire to show that the growing of cane for the manufacture of sugar offered a remunerative crop thoroughly adapted to Florida conditions, and therefore a most valuable substitute in regular farm practice for other staple crops which have been unremunerative. The yields and value of the returns from a crop of cane, therefore, are of particular interest. My own experience and the various replies received from the letters sent to many cane growers in the State indicate that 500 gallons of syrup per acre is a reasonable product which may, with intelligent management, be counted on as almost certain, while exceptional crops are known to sometimes return fully twice this quantity of syrup. Such syrup as I have described and have shown can be easily made with certainty, finds constant and ready demand in the market at a net return of 25 cents per gallon, or a gross return of \$125 per acre of cane. I believe that this acre of cane can be grown, and its product can be manufactured into syrup at an average cost of \$75 per acre, leaving a net profit on a very moderate basis of \$50 per acre from the crop. The same syrup, if marketed in the condition I suggest, will easily double the returns.

If sugar is the product in which the crop is finally marketed, an estimate made on the same basis and from the same data leads me to place the reasonable yield at 3000 pounds of sugar per acre with the simple domestic methods described. The sugar finds ready sale at 4½ cents per pound net, or a gross return of \$135 per acre. In addition to this, the molasses obtained must be taken into consideration, although its quality does not give it a fixed commercial status. The expense of producing sugar is nearly one-tenth greater than that of making syrup, or \$82 per acre, leaving a net profit per acre of cane manufactured into sugar of \$42. Although it, therefore, appears that the crop is more profitable when manufactured into syrup than when manufactured into sugar, still the combination of the two is commendable, at least to the extent of supplying home demand. It will, therefore, be seen that the sugar cane crop on a purely commercial basis can be made one of the most profitable resources of the Florida farmer, aside from the mere advantage of domestic independence.

In conclusion, I desire to express sincere thanks to the many citizens of the State who have kindly assisted me in procuring the data used in this bulletin, and particularly to Professor Persons and Mr. Davies of the Chemical Department, for the courtesies and assistance rendered.—*H. E. Stockbridge, Bulletin 44, Florida Experiment Station.*

JUNE 18.

WEEKLY MARKET REPORT.

1898.

SUGAR.	June 11.	June 13.	June 14.	June 15.	June 16.	June 17.	SAME DAY LAST YEAR.	TOKE OF MARKET AT CLOSING OF WEEK
Open Kettle.								
Choice	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	3 1/2 @ 3 3/4	Steady.
Strict Prime	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	
Prime	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	2 7/8 @ 2 3/4	
Fully Fair	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	2 3/4 @ 2 3/4	
Good Fair	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	2 3/4 @ 2 3/4	
Fair	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	2 3/4 @ 2 3/4	
Good Common	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	2 3/4 @ 2 3/4	
Common	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	3 1/2 @ 3 3/4	2 3/4 @ 2 3/4	Quiet.
Inferior	— @ —	— @ —	— @ —	— @ —	8 @ 8 1/2	3 @ 3 1/2	2 3/4 @ 2 3/4	
Centrifugal.								
Plant'n Granulated.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ 4 1/2	
Off Granulated.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/2 @ 3 3/4	
Choice White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/2 @ 3 3/4	
Off White	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	— @ —	— @ —	3 1/2 @ 3 3/4	
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/2 @ 3 3/4	
Choice Yellow	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/2 @ 3 3/4	Easy.
Prime Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 3/4	
Good Yellow	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	4 1/2 @ 4 1/2	3 1/2 @ 3 3/4	
Seconds	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 @ 3 3/4	
MOLASSES.								
Open Kettle.								
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Choice	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Strict Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Prime	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Fair	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Good Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Common	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Inferior	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	
Centrifugal.								
Fancy	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ —	
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ —	
Strict Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 9	
Good Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 8	
Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 7	
Good Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 6	
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6	
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5	
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	
Inferior	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4	— @ 4	— @ 4	
SYRUP.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

OTHER MARKETS.

NEW YORK:								
SUGAR.								
Fair Refining, 80	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Fair demand.
Centrifugal, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	5.08 @ —	4.47 @ —	
Standard A.	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.96 @ —	4.85 @ —	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Quiet.
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	12s. 6d.	12s. 9d.	12s. 9d.	12s. 9d.	12s. 9d.	12s. 9d.	10s. 3d.	Firm.
A. & G. Beet	9s. 9d.	9s. 9d.	9s. 8 1/2 d.	9s. 8 1/2 d.	9s. 8 1/2 d.	9s. 8 1/2 d.	8s. 6 1/2 d.	

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	Steady.
Powdered	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	— @ 5 1/2	
Standard Granula'd	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	
Candy A	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	
Crystal Extra C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	

STOCKS.

At four ports of the United States to.....	June 8.....	Tons	808,591
At four ports of Great Britain to.....	June 4.....	"	80,500
At Havana and Matanzas to.....	June 8.....	"	81,000

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JUNE 17, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	—	14,956
Sold	—	19,013

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO JUNE 17, 1898.

	SUGAR	MOLASSES.
	Hhds.	Barrels.
Received	28,370	1,496,258
Sold	28,370	1,492,450
Received same time last year	87,178	1,290,851

JUNE 18.

WEEKLY MARKET REPORT.

1898.

RICE.	June 11.	June 13.	June 14.	June 15.	June 16.	June 17.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.
ROUGH, $\frac{1}{2}$ bbl.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Dull.
CLEAN, Fancy.....	6 $\frac{1}{4}$ @6 $\frac{1}{4}$	6 $\frac{1}{4}$ @6 $\frac{1}{4}$	6 $\frac{1}{4}$ @6 $\frac{1}{4}$	6 $\frac{1}{4}$ @6 $\frac{1}{4}$	6 $\frac{1}{4}$ @6 $\frac{1}{4}$	6 $\frac{1}{4}$ @6 $\frac{1}{4}$	5 $\frac{1}{4}$ @6	
Choice.....	5 $\frac{1}{4}$ @6	5 $\frac{1}{4}$ @6	5 $\frac{1}{4}$ @6	5 $\frac{1}{4}$ @6	5 $\frac{1}{4}$ @6	5 $\frac{1}{4}$ @6	5 $\frac{1}{4}$ @5 $\frac{1}{2}$	
Prime.....	5 $\frac{1}{4}$ @5 $\frac{1}{2}$	5 $\frac{1}{4}$ @5 $\frac{1}{2}$	5 $\frac{1}{4}$ @5 $\frac{1}{2}$	5 $\frac{1}{4}$ @5 $\frac{1}{2}$	5 $\frac{1}{4}$ @5 $\frac{1}{2}$	5 $\frac{1}{4}$ @5 $\frac{1}{2}$	4 $\frac{1}{4}$ @5	
Good.....	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	4 $\frac{1}{4}$ @4 $\frac{1}{2}$	
Fair.....	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	5 $\frac{1}{4}$ @5	4 $\frac{1}{4}$ @4	
Ordinary.....	4 $\frac{1}{4}$ @4 $\frac{1}{2}$	4 $\frac{1}{4}$ @4 $\frac{1}{2}$	4 $\frac{1}{4}$ @4 $\frac{1}{2}$	4 $\frac{1}{4}$ @4 $\frac{1}{2}$	4 $\frac{1}{4}$ @4 $\frac{1}{2}$	4 $\frac{1}{4}$ @4 $\frac{1}{2}$	3 $\frac{1}{4}$ @3 $\frac{1}{2}$	Quiet.
Common.....	4 $\frac{1}{4}$ @4	4 $\frac{1}{4}$ @4	4 $\frac{1}{4}$ @4	4 $\frac{1}{4}$ @4	4 $\frac{1}{4}$ @4	4 $\frac{1}{4}$ @4	— @ —	
Inferior.....	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Nominal.	
No. 2.....	2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$	2 @2 $\frac{1}{4}$	
BRAN, $\frac{1}{2}$ ton.....	12 50@13 00	12 50@13 00	12 50@13 00	12 50@13 00	12 50@13 00	12 50@13 00	12 00@—	
POLISH, $\frac{1}{2}$ ton.....	16 00@—	16 00@—	16 00@—	16 00@—	16 00@—	16 00@—	17 00@18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK ENDING JUNE 17, 1898.

Received.....	SACKS ROUGH. BLS. CLEAN.
Sold.....	960 — 203

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO JUNE 17, 1898, COMPARED WITH LAST YEAR, SAME TIME.

This year.....	SACKS ROUGH. BLS. CLEAN.
Last year.....	469,665 8,081 375,810 9,680

Sugar.

The local sugar market was quiet and steady at the end of the week, with receipts very fair for this season of the year.

Molasses.

No open kettle goods in first hands. Centrifugals easy.

Rice.

The rice market was quiet at the end of the week owing to lack of offerings. Prices ruled steady.

Sugar in London.

Renewed buying of beet by the American refiners has produced a very firm tone here, and although the actual demand just now is only moderate, prices show a decided tendency to rise. Considering the heaviness of the visible supplies, there is remarkable difficulty in getting hold of actual sugar, both cane and beet. Indeed, it is questionable whether the relative values of the former were ever so disproportionate as they are now. In the last three months the prices of low brown sugars, such as jaggery, Penang, Egyptian and Mauritius, have advanced no less than 1s. 6d. to 2s. per cwt., while the improvement in beet is represented by only 4 $\frac{1}{2}$ d. per cwt. The great advance in cane sugar is, of course, partly due to the disturbance in Cuba, to the partial failure of the jaggery crop in India, and perhaps to the blockade of Manila, but the diversion of cane sugar to other countries rather than to England has, perhaps, never been so marked as now. After the many years of depression, however, which have at times threatened to imperil the cane industry, no one will begrudge the return of prices, which are once again remunerative, and which are the outcome of an improved demand and shortened supply. As regards grocery kinds, the late substantial advance in value is fully maintained, and, although the present comparatively high prices of crystallized raws are having the effect of checking the consumption

of this sugar, there seems little chance of any important alteration in value, as fresh supplies are light and likely to be so. There were no imports of this sugar for the week ending 26th inst., the total for this year remaining 12,931 tons, against 16,120 tons in 1897.—*Produce Markets Review*, May 28.

Talmage on the Rice Market.

While the volume of business is of pretty ample proportions, the demand of the week showed a lulling down, being less than that of any equal period since the middle of March. Values are, however, without change as prices at this point are relatively lower than those prevailing abroad. Another feature which is tending to sustain prices is a knowledge of the fact that some considerable amounts will be required to fill contracts already made with the government for army and navy supplies and also to meet governmental requirements for similar uses, as proposed in bids just closed but not yet awarded. Advices from the South note a general quieting down of demand but with light stocks; at all points former prices are firmly maintained. Cables and correspondence from abroad give no promise as yet of any recession in values; in fact, the best selections, such as are demanded by the United States, are higher than at any previous period this season. The confidence of buyers and sellers as to the outlook is alike evinced by bids for large blocks within two or three pence per cwt. of asking prices and the refusal to accept same by holders.

Talmage, New Orleans, telegraphs Louisiana crop movement to date: Receipts, rough, inclusive of amount carried over, 543,325 sacks; last year, 570,520 sacks. Sales, cleaned (estimated), 122,765 barrels: last year, 111,200 barrels. Limited demand, mainly local. Stocks first and second hands, light and firmly held.

Talmage, Charleston, telegraphs Carolina crop movement to date: Receipts, cleaned, 59,500 barrels. Sales, 59,425 barrels. Market quiet at firm quotations.

Demerara.

The rise in prices for all grades of cane sugar is a very gratifying circumstance, and to take advantage of the increase the planters

propose to make a big effort to cut as much cane as possible. On many estates grinding is expected to begin this week, and should the present favorable weather continue, the campaign promises to prove very successful. One estate on the east coast has already sent to town its first instalment. The change that has taken place in the weather within the past few days is gladly welcomed by the planters. A continuance of the sunshine for three weeks or so is now all that is wanted.

The favorable reply of Sir Walter Sendall to the deputation of planters which waited on His Excellency last Wednesday, on the subject of immigration will be received with gratification by the planting community. Mr. R. G. Duncan, who spoke on behalf of the deputation, in stating the planter's case, referred to the fact that the cost per head of introducing say 2400 coolies would be considerably more than the cost of the number the estates applied for, 3600 or a still greater number. Mr. Duncan said even the number applied for was insufficient for the needs of the estates, and if the planters had the opportunity they would materially increase their requisitions. His Excellency before the deputation withdrew observed that the case of the planters had been excellently and temperately stated. The subject, he said, would have his early attention, as he recognized how important it was to the colony that an adequate labor supply should be maintained. Sir Cavendish Boyle was also present during the conversation and advised His Excellency on certain statistical matters bearing on the case.—*Chronicle*, May 11.

Mr. G. E. Gillis, manager of the large place of the Poydras P. and M. Company, Limited, on the Lower Coast, was in the city on Thursday.

Hon. Andrew L. Gay, of the Union and St. Louis plantations, in the parish of Iberville, was in New Orleans during the early part of the week.

Mr. and Mrs. Hubert Edson, of Pattersonville, were guests of the St. Charles on Thursday. Mr. Edson, as is well known, is the chemist at the Calumet factory of Mr. Daniel Thompson, and he has established for himself an international reputation.

Mr. John Eager, the well-known sugar engineer, who has a high reputation in Cuba, Mexico, and many other places, and who has been in the city for some weeks on business connected with the Mexican sugar industry, will leave in a few days for the City of Mexico.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—A POSITION AS ASSISTANT VAC. um pan sugar boiler for next season, by a sober, settled man; has a great deal of experience in a sugar house, having been an overseer for sugar plantation for a number of years. Address L. J. B., Ellendale, La. 6-13-98

WANTED—A POSITION BY A YOUNG LADY as governess during the summer for young children in the country near the city; good references, easy terms. Address BOX 613, Station E, New Orleans.

WANTED—A POSITION AS SUGAR HOUSE superintendent or chemist, by a man of long experience, with good references. Address D. J., 1420 Valmont street, city. 6-14-98

WANTED—A POSITION AS VACUUM PAN sugar maker; ample references given. Address J. G., this office. 6-13-98

WANTED—SITUATION AS SUGAR BARREL cooper. Address A. CHAMETT, 2714 Second street, New Orleans. 6-15-98

WANTED—A TRUSTWORTHY, COMPETENT man to take charge of boarding house under salary; must have experience and satisfactory references. Address C. P., this office. 6-15-98

WANTED—AMERICAN CHEMIST, 25 YEARS of age, graduate of Heidelberg University, Germany, thoroughly acquainted with the sugar industry, is looking for a position as sugar chemist. Best reference. Address B. G. HARTMAN, 118 S. Charles street, Belleville, Illinois. 6-6-98.

WANTED—A POSITION AS ENGINEER TO DO repairs and take off the crop; am strictly sober, a man of family, and have had long experience; good references. Address P. H. ELLIOTT, 724 Fern street, New Orleans, La. 6-9-98

WANTED—POSITION AS CHEMIST IN BEET or cane sugar house; am 28 years of age, temperate and a hard worker; am competent for the work; modest pay; can furnish Schaidt & Harusch polariscope, if wanted; good reference. Address CHEMIST Box 175, Medicine Lodge, Kas. 6-8-98.

WANTED—BY GENTLEMAN WITH SMALL family, a position as book-keeper and manager in town or country store; thoroughly experienced in office work and general business; best of references, and bond furnished, if required. Address MORTIMER, care The Chief, Donaldsonville, La. 6-10-98

WANTED—A POSITION AS SUGAR MAKER ON a plantation for the coming season; have had long experience with vacuum pan and open kettle sugar; can furnish best references. Address A. FREDERIC, 3412 North Rampart street, New Orleans, La. 6-9-98

WANTED—A COMPETENT, SOBER MAN desires a position as sugar boiler; understands his business; will give first-class reference. Address G., 1137 Dauphine street, New Orleans. 6-7-98

WANTED—A POSITION AS STORE KEEPER, time keeper, or any clerical capacity, by a man of experience, who can furnish both country and city references. Address C. J. A., 1015 Race street, New Orleans. 6-7-98

WANTED—A POSITION AS ASSISTANT engineer, and to do repairing on a sugar plantation, by a man of experience in sugar house and foundry work. Address F. H. P., General Delivery, New Orleans, La. 6-3-98

WANTED—AT ONCE, TWO EXPERIENCED refinery sugar boilers for a refinery in this country. Only those with first-class references will apply to H. F., care LOUISIANA PLANTER. 6-6-98

WANTED—POSITION BY A YOUNG FRENCH engineer (civil graduate), twelve years' experience in machinery, electrically, buildings; wants any kind of situation or job. Address H. B., LOUISIANA PLANTER. 6-6-98

WANTED—SITUATION BY A GRADUATE OF polytechnic academy; fourteen years' experience in beet sugar factories; well versed in practical sugar manufacturing; chemical control; arrangement of sugar house; beet culture, etc.; best of testimonials and references given. Address C. D., 147 Green street, Brooklyn, N. Y. 6-2-98

WANTED—A GOOD MECHANIC TO REPRESENT me in each sugar parish in the State for the sale and construction of my new automatic cane transfer. Address E. W. WILEY, Jr., Lecompte, La. 6-2-98

WANTED—A POSITION BY AN EXPERIENCED sugar maker for the coming crop; many years' experience; best of references given. Address ALBERT PEYRONNET, 1933 Dumaine street, New Orleans, La. 6-3-98

WANTED—A POSITION FOR COMING SUGAR crop as cane weigher, juice keeper or water tender, by a married man; best of references. Address GEO. TASSIN, New Orleans, La. 5-28-98

WANTED—A POSITION BY A COMPETENT vacuum-pan sugar maker to take off the crop during the next season; I can do my own clarifying; strictly temperate and reliable; references furnished on application; would accept an assistant in a large crop. Address SUGAR MAKER, Lock Box 20, Eagle Lake, Texas. 6-2-98

WANTED—BY A MAN OF MANY YEARS' experience, a situation as clarifier for vacuum pan, or sugar boiler and clarifier on open kettles, or open steam train; the best of references given. Apply to E. MEYNARD, Charenton P. O., St. Mary parish, La. 6-1-98

WANTED—A POSITION BY A YOUNG MAN with experience as clerk in a country or plantation store; has knowledge of book-keeping; good references. Address C. P. A., this office. 5-31-98

WANTED—POSITION BY A FIRST-CLASS sugar chemist of long experience, competent to take charge of any department of sugar manufacture; excellent recommendations. Address CLEMENS DOMES, 147 Green street, Brooklyn, N. Y. 5-19-98

WANTED—POSITION ON A SUGAR PLANTATION as manager or assistant for winter; also next year if everything proves satisfactory; can come October 1 and bring 50 or 100 hands for grinding if wanted; have had much experience in planting and managing labor. Address K., Greensburg, St. Helena parish, La. 5-26-98

WANTED—A POSITION BY AN EXPERIENCED engineer and machinist, thoroughly familiar with all classes of sugar house and refinery machinery, and can furnish first-class references from employers for the past fifteen years. Address J. E., 535 Magazine street, New Orleans. 5-24-98

WANTED—A SUGAR OR MOLASSES BARREL maker would like a position on a plantation, or in the city; can furnish references. Address LOUIS ROGERS, 2001 Bienville street, city. 5-21-98

WANTED—A FIRST-CLASS ASSISTANT vacuum pan sugar maker; give references. Address, Lock Box 193, Patterson, La. 5-19-98

WANTED—A TECHNICAL, EDUCATED MAN, with three years' experience in Europe, and competent to conduct a beet sugar factory, wants any position where he can make himself useful. Address HOBROCK, 46 Cabot street, Boston, Mass. 5-20-98

WANTED—A POSITION AS TRAMWAY ENGINEER. Address A. E. HUTCHINSON, 740 Nashville avenue, New Orleans. 5-20-98

WANTED—A POSITION AS SUGAR HOUSE engineer, for construction, repairs and general work. Satisfactory references as to ability and character. Address A. S. ARMSTRONG, 1026 Jena street, New Orleans. 5-10-98.

WANTED—POSITION AS WEIGHER OR SIMILAR for coming season, by experienced man of 35; first-class recommendation; well posted on general office work; also open for any kind of employment at once. Address E., care L. Schuster, merchant, Hohen Solms P. O., Ascension parish, La. 5-3-98

WANTED—A POSITION BY A FIRST-CLASS sugar house and refinery engineer to do repairs and take off crop; has fifteen years' experience. Address D. W. B., No. 720 Valmont street, New Orleans, La. 5-3-98

WANTED—BY A FIRST-CLASS MACHINIST and engineer, fifteen years' experience in refineries and sugar houses; can give first-class reference. Address HENRY WESTON, 740 Poydras street, New Orleans, La. 4-26-98

WANTED—BY A FIRST-CLASS OPEN KETTLE, open pan and vacuum pan sugar maker, a position for this coming grinding season; best of references can be given. Apply to FELIX SERPASSE, St. Bernard P. O., La. 4-27-98

WANTED—POSITION ON A PLANTATION AS assistant manager, time or book-keeper; could take charge of a stable; I am a married man, 30 years old; have good references as to habits and capability; all letters will receive prompt attention. Address WILLIAM DEETRICH, Hammond, La. 4-23-98

WANTED—A POSITION AS RAILROAD trackman on some plantation. Address K., St. Bernard P. O., La. 5-10-98.

WANTED—ONE DOUBLE-EFFECT MAN, having experience. Address SUGAR MAKER, care this office 4-16-98

WANTED—A POSITION WITH A LARGE firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98

WANTED—ONE OF THE BEST REFINERY and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—A POSITION AS CLERK OR ASSISTANT overseer, on sugar plantation; can give best of references as to ability and character. Address 500, care PLANTER.

WANTED—A GOOD GARDENER AND YARD man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. R. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS IN the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98.

WANTED—A POSITION AS FIRST-CLASS Painter; can give good references. Address 200, this office. 4-9-98.

WANTED—A POSITION AS SUGAR MAKER; would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98.

WANTED—A CARPENTER, WITH LARGE experience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; At reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION AS BLACKSMITH, BY a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

WANTED—SUGAR EXPERT, 25 YEARS' EX- perience in beet sugar and five in cane factories, desires position as manager or his assistant; best of testimonials. Address SUCCESS, Produce Exchange, E 15, New York. 3-17-98

WANTED—STABLEMAN AND HOSTLER wants a situation on a plantation; understands his business thoroughly; sober and reliable; can furnish first-class recommendations. Address STABLEMAN, care this office. 3-17-98

WANTED—PARTIES OWNING A VERY large and commodious manufacturing plant, well suited for the manufacture of sugar machinery, are desirous of communicating with an experienced mechanical sugar engineer, specially familiar with designing and constructing the most modern machinery for beet sugar plants. Give age, experience and salary expected. Address, C. F., 1304 N. Delaware street, Indianapolis, Ind. 3-26-98.

WANTED—A POSITION BY A COMPETENT vacuum pan sugar boiler, five years' experience, for 1898 crop; best of reference and satisfaction guaranteed. H. J. SAVOY, Painscourtville, La. 3-18-98.

WANTED—A POSITION AS CHIEF ENGI- neer and machinist, to do repairs and take off crop for coming season; can furnish the best of references. Address A. B. W., 866 Camp street, New Orleans, La. 3-9-98

WANTED—SUGAR CHEMIST DESIRES PO- sition at once; has new process of cultivation and clarification; write for further particulars, W. J. Z., 411 Wharton street, Philadelphia, Pa. 3-9-98

WANTED—A POSITION AS ELECTRICIAN OR ice-house work; also a good mechanic or sugar-house engineer; can furnish good references. Address F. G. LORENZ, 435 Chartres street, city. 3-4-98

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THE LOUISIANA PLANTER

AND

SUGAR MANUFACTURER,

A Weekly Newspaper,

DEVOTED TO THE SUGAR, RICE AND OTHER AGRICULTURAL INDUSTRIES OF LOUISIANA.

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AND

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The Sugar Beet in Pennsylvania.

The Agricultural Experiment Station of the Pennsylvania State College has issued its bulletin No. 40 under the above title, by Dr. Henry Prentiss Armsby, the director of the station. It is a handsome bulletin, the subject matter taking up first the great sugar consuming capacity of the United States, which exceeds by 500,000 tons that of any European country, aggregating about two millions of tons. It alludes to the general revival of interest in the sugar question in this country and the desire to make it produce its own sugar, looking to the sugar beet as a large source of this supply. Professor Armsby advertises to the fact that the sugar beet is now producing about two-thirds of the world's sugar.

He discusses the problem of successful beet sugar manufacture, dividing it into two parts, first, the production of beets, and, second, the manufacture of sugar therefrom. The second part of this problem has already been very thoroughly worked out in European countries, and does not require much investigation in this country, as the technology of sugar matter has been perfected by years of study and experience and is now very thoroughly understood. He refers to the popular estimate of 300 tons as the minimum size of a successful beet sugar factory and its cost to be not much less than \$200,000. All hope on the part of the farmers that they can manufacture beet sugar with simple and inexpensive apparatus should be given up at once, as the industry requires such expensive apparatus and to be carried on on a very large scale to insure the very best results.

It is held that the farmer should confine his attention strictly to the agricultural side of the question and produce beets of the best possible quality and at the lowest possible cost. If the beets are too small the yield per acre is likely to be light and the profits to the grower

little or nothing. If the beets are too large they are apt to be poor in sugar and general experience has fixed upon the weight of about 1 to 1 1-3 pounds as the size best adapted to the interests of both farmer and manufacturer. It has not usually been found practicable to profitably manufacture sugar from beets containing less than 12 per cent. of sugar.

The bulletin contains a series of tabulated statistics, after which the question is discussed as to whether or not it will pay the farmer to raise beets for sale to the factories at prices assuring to the factories a reasonable profit. Professor Armsby assumes \$4 as an approximate average price for beets in this country and believes that notwithstanding the considerable amount of work necessary to produce the beet crops that the industry can be made profitable on that basis. Ten tons per acre seem to be generally recorded as a fair crop, although good land and careful cultivation should produce 12 to 15 tons.

He suggests that wherever there is a general interest in this matter that a sugar beet association should be formed and through it an earnest endeavor should be made to secure the active co-operation of as many farmers as possible. These farmers should be induced to inform themselves thoroughly concerning the industry and then to engage in it, securing first-class sugar beet seed and raising a limited quantity of beets the first year in order to acquire familiarity with the work, having their work tested at the experiment station. The whole bulletin is an excellent one and is applicable to a score of other States in the Union as it is to Pennsylvania and we trust that good results will follow its publication.

The Louisiana Cane Crop.

A sufficiency of rain seems to have fallen everywhere throughout the sugar district, with the exception of a few

spots which the showers seem to have passed over. Good weather to permit of the canes receiving the laying-by working is now desired, and in the meantime both crops and weeds are shooting up with remarkable vigor and rapidity, the cane rapidly retrieving the backwardness which it formerly exhibited.

June Weather of Other Years.

From the diaries of Mr. Valcour Aime and Mr. H. Octave Colomb we have secured some interesting data concerning June days in ante-bellum times, and we shall see that the questions of rainfall and drought were as important then as now. From Mr. Valcour Aime's diary we take the following:

1851.

June 1. Through ploughing and hoeing for fourth time; river rises a little on 6th; ploughing in pease. During several days a great number of dead fish are seen drifting down the river. Weeding and hilling up pease.

1852.

June 1. Weeded pease. Worked centrifugal machine on 2d and subsequent days and obtained as follows: 12,000 pounds of saccharine matter, the value or equivalent of 100 moulds of sugar passed through the centrifugals, gave 4754 pounds dry sugar, sold at 6¼ cents. Begun working plant cane on 8th for the eighth time; canes do not quite screen the plowmen. Wind uncomfortably cool on the 9th in the evening at 9.

1853.

June 1. Begun ploughing plant cane for seventh time, and begun hoeing them for seventh time on 2d; 15th. Drought still prevailing; rained a little on 21st.

1854.

June 2. Light rain; through ploughing stubbles for third time on 3d, and begun ploughing in the pease. 9th. Worked plant cane for the sixth time. Weather very warm; sun's heat intense on the 28th and 29th particularly; thermometer 88 deg. F.

1855.

June 1. Light rain; harrows working stubbles; 4th. Harrowing plant cane. Very heavy shower on 20th in the evening, being the heaviest since October last.

Mr. Colomb's diary reads as follows:

1851.

June 1. Clear, warm. River rising slowly. Lime ninety cents per barrel. 2d. Twenty negroes died of cholera on Dr. Nicholas' plantation. Sugar worth 5½ to 5¾. 8th. Want rain very much, corn especially. 10th. Roasting ears in the field. Tallest cane 7½ feet. Corn 3 to 4 feet high. 13th. River water not fit to drink on account of dead fish in it. 18th.

Some ratoons have joints. Eight feet to end of leaves.

1852.

June 1. Clear and warm. Three-horse plows breaking up oat patch. Some cholera in parts of country. River on a stand at about 3 feet below high water. 4th. Cane four feet high. 9th. Plows finished old ground ratoons at noon. 19th. River rising slowly. Is two feet below last year's high-water mark. 23d. Plant cane 5 feet high. Figs and peaches ripe.

1853.

June 1. Clear, warm. Plows in pasture, plant and ratoons. Hoes following plows. 6th. Plows in ratoons opening middles. Cane growing well. 18th. Roasting ears in corn since a week. Tallest cane 6 feet.

1854.

June 1. Cloudy. Plows in ratoons laying by. Some cholera on coast. 2d. Cane has a good color. Ratoons very good. Pease come up very well. 14th. Field getting grassy. Too much rain. 21st. Ten two-horse plows in plant laying by, hoes following. Plows go over 30 arpents a day. Some cholera in neighborhood. Tallest ratoons 6 feet. Plant 5 feet. River falling.

1855.

June 1. Clear, dry. River falling. Cotton gone up. Sugar and molasses fallen. Two hundred and eighty deaths from cholera in New Orleans. 8th. Cane very backward and yellow. Corn all tasseled. Ears forming. Want rain. 26th. Rain enough for crop.

1856.

June 1. Cloudy and light showers. 2d. Eleven two-horse plows in young corn. 5th. Plows in plant putting dirt. Want rain. River falling. 10th. First rain since twenty-four days. Cane small, but green. 21st. River fallen ten feet since fifteen days.

1857.

June 1. All hands in new ground corn thinning. Worked in ratoons after dinner. Cane good but small. 11th. Fields grassy; can't get it cleaner. Want rain. Cane not growing for want of rain. Pork, \$24.50. Sugar, 11 to 12 cents. Molasses, 67 cents.

1858.

June 1. Plows in plants opening middles. 7th. River on a stand. Ratoons very fine. Some 5 feet high. Best plant, 4 feet; 7½ feet to end of leaves. Very warm weather. Crevasse water coming in on back lands of plantations in St. James. Tomatoes ripening. Found a cane on 13th 8 feet 4 inches to end of leaves. Floods in upper rivers. Cane inundated. 22d. Ratoons all laid by and part of plant. Want rain.

1859.

June 1. Very warm. Hoes in old ratoons and corn. River 3 feet below high-water mark. 11th. Good rains. Cane turned green by rain. 14th. Roasting ears in field. 22d. Crop improved wonderfully. Corn very fine.

1860.

June 1. Plows in ratoons laying by. Hoes in plant weeding. Crop wants rain.

Political Science Quarterly.

No. 2 of Volume 13 of this excellent quarterly has just come to hand and includes a number of essays of exceptional merit, among which we note: Corporations and Political Science, by Prof. J. W. Burgess. The Continental System, by Prof. W. M. Sloane. The Local Government Board, by Milo R. Maltbie. Zola, Dreyfus and the Republic, by F. W. Whitridge. Official Tariff Comparisons, by Worthington C. Ford. The German Exchange Act, by Prof. H. C. Emery. Levasseur's American Workingmen, by S. N. D. North.

The *Reviews* maintain their high standard of excellence and include Fiske's Old Virginia, Smith's Liberty and Free Soil Parties, Perkins' France under Louis XV, Schelle's Vincent de Gournay, Saint Leon's Histoire des corporations de metiers, Howe's Studies in the Civil Law, Godkin's Unforeseen Tendencies of Democracy, Morselli's Questione del negri, Weber's Zug nach de Stadt, Evan's Evolutional Ethics and Sidis' Psychology of Suggestion, Clamageran's Lutte contre le mal, Brentano's Agrapolitik.

The record of political events by Prof. Wm. A. Dunning gives the usual comprehensive view of the political world in this country and abroad.

The *Quarterly* is edited by the Faculty of Political Science of Columbia University and is published by Ginn & Co., Boston. Yearly subscription, \$3.

Mr. C. B. Maginnis and Mrs. Maginnis, of Woodlawn plantation, in the parish of Terrebonne, were Sunday visitors at the St. Charles.

Mr. W. E. Howell, of Lafourche parish, was in the city on a visit during the past week.

Mr. R. G. Bush, the prominent sugar dealer and manufacturer, left during the week with his family for the North, where they will spend a portion of the heated term.

Mr. P. J. Casey, of the Casey & Hedges Company, Chattanooga, Tenn., was in the city during the past week and registered at the Grunewald.

Mr. A. R. Viguerie, of Houma, La., was in the city during the past week mingling with his friends. He put up at the Commercial Hotel.

Mr. J. W. Barnett, the proprietor of the splendid Shadyside place on Bayou Teche, and Mrs. Barnett, were at the St. Charles Hotel on Tuesday.

Hon. Walter A. O'Neill and Mrs. O'Neill, of Linwood plantation, St. Mary parish, were guests of the Royal on Wednesday.

Mr. August Levert, one of the leading sugar planters of West Baton Rouge parish, was a visitor to the city during the past week. He was accompanied by several members of his family.

Mr. B. A. Oxnard, of Adeline central factory, was in the city on Wednesday.

Mr. Walter I. Barton, of Ascension parish, where he has extensive sugar interests, was at the St. Charles Hotel during the past week.

Mr. Carroll Barton, of Assumption parish, and several members of his family were registered at the St. Charles Hotel a few days ago.

LOCAL LETTERS.

Iberville.

[Special Correspondence.]

Editor Louisiana Planter: The weather has been most excellent since last report—warm, with a sufficiency of moisture, and the color of both the corn and cane is rich, and shows these plants to be growing vigorously. There is no doubt that the size of the crop is below the average, and our planters, while realizing that the time for laying by has come, are reluctant to let it go. We learn that one of the most successful planters of the Teche begins laying by as early as April; that is, he lays by his plows in April, and thereafter uses only the disk cultivators, with small disks to stir up the surface of the row and draw a little dirt to the cane, and then applies the advance plow, with a fluke arrangement, to break the crust of the rows and cover up the young grass, which otherwise would take possession of the row, to the great injury of the cane. The roots of the cane are not out by this method.

Mr. Joseph D. Berret, of Soulouque, finished grassing his rice crop on Acadia last Friday, and says it is the finest crop he has ever raised. Mr. Berret says the quality of rice is made in the field, not on the market, and he works with this object in view, and the fancy price obtained by him last year shows that he understands his business.

From Messrs. LeBlanc & Nadier, of Plaquemine, we learn that they have lately entered into contracts with the following parties for transfers: Terrebonne parish, F. A. Bonvillain, agent, Argyle plantation, Southdown plantation, and John T. Moore, Schriever; Iberia, Shelby Sanders; St. Charles, Ashton Planting Company; St. James, Felicien Waguespack, Sport plantation; Iberville, Hon. James A. Ware, Belle Grove; Lafourche, Kent & Well; Assumption, Lawrence Pugh; Orleans, Rutledge & Milliken; and with the following for feeders: St. James, Oneida Planting Company, and Terrebonne, McCulloch Bros.

Mr. Ben C. LeBlanc, who has been traveling over the sugar section, says the spirit of progress which has swept over south Louisiana is perfectly marvelous, and factories heretofore considered first-class in every respect are being torn all to pieces, preparatory to having newer and larger machinery installed, sometimes at a cost approaching \$100,000. The finest and most regular crop of cane Mr. LeBlanc saw was at the plantation of Messrs. Rutledge & Milliken, and he thinks the estimate of twenty-eight tons average conservative.

Mrs. J. S. Tuttle, of Whitecastle, owner of the Laurel Ridge plantation, has lately augmented its acreage by the addition of a forty-five-acre tract purchased from Hon. James A. Ware. Mrs. Tuttle, as usual, has a good crop, and sufficient rain having fallen, hopes the showers will hold up till the work of laying by can be completed. Last year Mrs. Tuttle added a fine mill to her plant and is contemplating increasing its steam capacity the present season.

Mr. Amedee Levert, of Golden Ridge, is making some changes in his bagasse burner

this year and will use the Dutch ovens in connection with hollow bars put in by the Burt Company.

Mr. Robert Beltran, of New Orleans, son of Mr. Raphael Beltran, was in the parish this week looking after his father's Olivia plantation near Plaquemine.

The uneasiness about the supply of coal still exists and every now and then you will see a barge unloading coal and carts hauling it in, when the manager would much prefer to delay this work till the crop is laid by.

IBERVILLE.

West Baton Rouge.

[Special Correspondence.]

Editor Louisiana Planter: If there has been any change in the crop situation in this parish since my last report, that change has been for the better. Under the influence of the copious rains of the past few weeks, followed by high temperature between showers, cane, cotton and corn are simply booming. It is beginning to be feared, however, that from the drought which prevailed some weeks ago, we are rapidly going to the other extreme. Complaints are being heard, here and there, particularly from the cotton planters, that too much rain is falling. Then, too, some cane planters are protesting that the wet weather now prevailing has given the growth of grass such an impetus that they find some difficulty in keeping it down. Over and above all other conditions, however, the fact stands out in bold relief that there has been a most gratifying improvement in crops all along the line. The condition of the corn crop, which at one time seemed desperate, has become vastly improved as a result of the timely rains. Cane, too, has improved wonderfully, and several planters are quoted as saying that their crops are more promising than they have been for several years. Indeed, the weather is now conducive to the rapid growth of the plant. Planters will, however, be unusually late "laying by" in

WEST BATON ROUGE.

Assumption.

[Special Correspondence.]

Editor Louisiana Planter: The rains still continue, although in some localities a day or two of field work was obtained last week. The crops look healthy, have improved rapidly, but the grass and weeds are an eyesore to the planter. True a few days of work will get rid of the weeds, but the question is when will we get the few days? I believe as a general thing the crops now will compare favorably with those of last year. The corn crops are exceptionally handsome, and unless some untoward event happens there is every prospect for full barns another year.

Messrs. E. P. Munson, Albert O. Folse and S. Mills Malhot are named as commissioners by Judge Guion to assess the amount that Mr. Barton is entitled to for the land expropriated by the railroad. These gentlemen are all experienced planters, and the general public awaits with interest the verdict, or judgment. So far but two witnesses have been heard and the sitting was adjourned over to a day the

latter part of this week. The value of sugar lands is difficult to approximate. There have been some sales made here where the price obtained was upward of \$140 per arpent, and on the other hand there are other transactions at much lower figures.

The situation of the land seems to be the potent factor in fixing the price, and as a rule the proximity to a large refinery seems to boom the price of real estate. Sugar property sold under the hammer has frequently failed to sell for the cost of the machinery in the sugar house, and as a rule the smaller properties command a higher value in proportion than the larger places. It has been a matter of remark that in Assumption the price of sugar lands exceeds that of similar property on the Mississippi river, although it is difficult to understand why this should be the case, unless fear of crevasses is a controlling factor. However, the gentlemen named should be fully competent to appraise the value of the land, and the result will probably be a matter of interest to all interested in sugar lands.

Just at present there seems to be great confidence in the future of the sugar industry, and the desire to go into the raising of cane seems to be widespread.

The building of this branch road will stimulate this tendency, and if fair freight rates are given, as they doubtless will be, there will be an enormous increase in the acreage of land in Assumption devoted to the culture of cane.

Some weeks of good weather are needed to enable the cane to be properly laid by, as on many places this important work has been barely started. One of the prettiest crops on the Lafourche is that of Mr. Ulysses Bergeron, on the Attakapas Canal. Last year he averaged over twenty-six tons to the acre, and this year I learn that he will reach or exceed thirty tons. This is a remarkably fine average, but I do not doubt from all I hear of the stand and size that he will reach it. Some of the most productive land in Assumption is found along the Attakapas Canal, much of the land being virgin soil. The freedom from overflow that this section has enjoyed for several years has greatly encouraged the people, and the area that is being planted in cane increases rapidly annually.

Sunday and Monday there was no rain in Napoleonville and vicinity, and to-morrow will see many teams hitched up that have been waiting for better weather. To-day on some places dry spots were found, and the planter took advantage of them. The weather has been very hot and sultry, just the sort conducive to the growth of cane. It is to be hoped that when we do get better weather we will not have another drought, as rain in July and August, after the cane is laid by, is always an important matter, as it insures a rapid growth during these months. The size of the cane is not as great as it frequently is at this season, and yet if it can be properly laid by and then get plenty of heat and moisture it will undoubtedly fully make up for any lost time.

The reports from the rice fields are flattering, and the daily rains are of great service. Large yields are expected, and with the present

prospects for prices the future of the rice planter is indeed roseate. This means the prosperity of the small planter and more money in the country, a condition that is bound in the end to help all. MORE ANON.

Terrebonne.

[Special Correspondence.]

Editor Louisiana Planter: Climatic conditions have recently been extremely favorable for the growth of crops; but in localities the showers have been so frequent as to interfere with and retard the laying by working of the canes. The fields of cane and corn have improved materially in size and color, and all that is required to virtually insure good crops is favorable weather for the next two weeks. The rainfall in the upper part of the parish for the month up to and including last Sunday has been 7.35 inches, ample for the entire month. The lower portions of the parish nearest the gulf seem to have less rain than in other sections. All over the parish the crops are being laid by as rapidly as circumstances will permit, and with a cessation of showers numbers of planters will finish ploughing before the end of the month. The fields on different places recently seen are cleaner and the land in better condition than was anticipated. Except for some fields of indifferent second-year ratoons the crops on the following places promise well, viz.: the Argyle, of the Messrs. Bonvillain Bros.; Concord, of Col. Wm. Minor; Southdown, of the estate of the late Mr. H. C. Minor; Honduras, of Mr. Thomas Shaffer; Woodlawn, of Messrs. Maginnis & Caillouet (where they were able to plough every day last week and the crop consequently in fine condition); Presqu'île, of the Messrs. Gueno Bros., and Myrtle Grove, of Messrs. Brown & Duplantis. On the latter place the two-roller mill erected last year is being replaced by one of three rolls, and alterations are being made in the boiler plant. At St. Eloise, on Bayou Dularge—the Marmande estate, the vacuum pan process is to supersede the open kettles.

Since the war with Spain began writers here have expatiated on the wonderful possibilities of Cuba, and some have gone so far as to predict the utter ruin of the tobacco and sugar industries in this country under certain contingencies which may never arise. Our cane sugar producers have enough to discourage them at times without being informed that sugar can be produced on the island at a cent a pound, and that Cuba can furnish sugar for twice the present population of the United States and the entire Western hemisphere. Possibilities, but when will such become accomplished facts? Such statements are on a par with telling foreign cotton growers that the cotton belt of the United States can clothe the world, as we have now only about 20,000,000 acres in cultivation (can increase the area immensely), and some one has produced over two bales per acre, at a cost of four cents per pound, consequently the United States can furnish easily thirty or forty million bales at the above figure.

Cuba has soils of great fertility and a fine climate for cane sugar production, yet the writer has seen thousands of acres of cane east

of Havana which would not have yielded three thousand pounds of sugar per acre with compound crushing plants. From twelve to fourteen thousand pounds of sugar can possibly be produced per acre, but the average output has not been half that amount. Small areas in the Sandwich Islands have produced 20,000 pounds, yet Dr. Maxwell states that the average yield is less than 6500 pounds per acre.

On Wednesday, Thursday, Friday and Saturday of last week local showers. Sunday partially cloudy, Monday and Tuesday local rains and Wednesday evening indications of rain.

The weekly official weather report from Schriever is as follows:

	Temperature.	Sunshine.	Rainfall.
June 13.....	90	71	50
" 14.....	92	71	50
" 15.....	90	69	75
" 16.....	92	71	50
" 17.....	90	70	75
" 18.....	92	71	100
" 19.....	93	67	100
	91	70	71
			2.81

TERREBONNE.

St. Mary.

The sugar cane crop now has a showing of reaching its full size, since a propitious growing season has opened under favorable auspices.

Charbon is playing havoc with the stock, especially in lower St. Mary. We are informed that many head of valuable mules and horses have died with the disease near Patterson and below, chiefly those belonging to small owners. Veterinary surgeons have been there trying to stamp out the disease. As we go to press, we learn that it has not reached Bayou Sale yet, and that the planters there are using every possible precaution to prevent its appearance. And the Cypremort country is yet free from its ravages. The work of vaccinating animals as a preventive is being prosecuted with great diligence.

Numerous important repairs are being added to the Caffrey refinery. The whole house is being overhauled; every piece of machinery is being taken down, examined and tested, and will be put back if its condition is found safe, besides the installation of a quantity of new machinery. The management of this great concern seems never to be satisfied unless the place is absolutely first-class in its every detail. Besides other improvements and changes, an enormous Krajewski & Pesant crusher is being placed ahead of one of the mills. All the machinery, in fact, except that part necessary to dry out the seconds, has been taken down for inspection. No device for the economic or rapid manufacture of sugar has been looked over in the make-up of this great concern. Contracts, too, have been made for large quantities of cane, and the Caffrey expects to surpass all former records. —*Franklin News, June 16.*

Iberia.

[Special Correspondence.]

Editor Louisiana Planter: Copious rains having fallen throughout this district, the prospect is much improved, and "laying by" is

the order of the day. It is a fine object lesson to look at some of the fields comparatively. One field was ready for the rains and is now leaping to the front, the other was neglected because it was "too dry," and even the blessed rain has not had a chance to perform its heaven-born mission, and the cry from the owner of such is "too wet." The former field was cultivated by a man having "foresight," and the other field by one having "hindsight." On the whole, the outlook is very encouraging, with 25 per cent. increased acreage, and the condition about up to the average. Iberia's crop will be a record breaker. Owners of central factories are abroad in the land looking for cane. Hope central, Messrs. Binnings & Maurin, secured recently the product of 1600 acres, the price being 85 cents per ton for each cent of price prime yellow brings in the market. Other centrals are doing the same; some even better. These are good prices for cane, and will gladden the hearts of the cane producers, many of whom hold the plow and drive also in this parish—sturdy sons of toil, of pure Caucasian blood.

While at Jeanerette recently your correspondent met that genial up-to-date manager, Capt. Alex. Allain, under whose able management Albania has evolved from an O. K. sugar house, with all its wastes and perplexities, to the mammoth modern central factory, where a daily grist of 800 tons of cane is converted into first-class centrifugal sugar. Albania has 927 acres of good cane, and will buy some 10,000 tons outside.

Dr. S. R. Gay, of the great Segura central, was in town Saturday, on business connected with the big factory. The government has recognized Segura's importance and established a postoffice there, much to the satisfaction of that neighborhood. Captain Clem Binnings, of Hope, was also a visitor to the "Queen of the Teche."

Your scribe can not refrain from mentioning the enjoyable and patriotic flag raising here recently. It is a memorial flag to the boys who have gone from our parish to brave Spanish barbarity and Yellow Jack. The proceedings were lengthy and varied, and calculated to inspire lofty sentiments of duty and patriotism. The beautiful flag, 12x20 feet, was run up to the top of a pole 100 feet high, where it will remain till "Johnny comes marching home." God grant the flag may never be lowered to half mast.

NOTE.

Vermillion.

[Special Correspondence.]

Editor Louisiana Planter: We have had magnificent growing weather throughout the entire parish for the past week and the effects of it can readily be seen on the crops. Very slight showers fall daily, but not enough to do any harm. The weather is very warm, but that serves only as a stimulus to corn and cane. The corn crop, which was thought a few weeks ago to be an entire failure, promises now to be one of the finest ever produced in the parish. Cane is growing as nicely as could be asked for; it has scalded slightly in low places where drainage was not very good, but aside from that nothing detrimental can be said of it. Cotton

is not doing very well. This crop has been neglected from the beginning of the season and the effects of the slight can easily be detected in the plant, which is small and not healthy looking. Rice is booming; both irrigated and providence rice has now plenty of water. The crop will be a very large one and will be on the market early.

Charbon that was reported last week to exist in this parish has become almost an epidemic in the southern portions. A number of the large cattle raisers have suffered large losses from the ravages of this disease for the past few days and the prospects for future developments in the immediate future are very appalling. A few men on Pecan Island are reported to have lost from 200 to 300 head of cattle and they continue to die like flies. It has shown itself among the mules and horses in the south central part of the parish, and already many have died. A great many small farmers have lost their work stock, which does not only work a hardship on them in the loss which they can ill afford to stand, but deprives them of stock to finish their crops. Pasteur's Anthrax treatment is being tried, but with what success can not be told yet. Mr. R. H. Mills, of Abbeville, who has a large stock ranch on lower Vermilion river, took several hundred doses of this treatment to his place on the 21st instant, and will have it used at once. He has supplied his stock tenders with coal oil to be used to burn the stock that dies, and left instructions to use the Anthrax serum on all the cattle on his ranch, both gentle and wild. Mr. Mills will give the treatment a thorough trial, and will be able to report shortly if it is effective in Vermilion. It is being tried by a number of others also.

The leading farmers of the parish will meet at the court house here Saturday, the 25th, to arrange for the holding of a Farmers' Institute some time during the month of July. Major J. G. Lee, Commissioner of Agriculture, has offered to conduct the institute, which is for the sole benefit of farmers and which our more progressive tillers of the soil will pull through to success. A similar institute was held here last year by Major Lee, but as it was the first attempt the general results were not very encouraging.

Mr. W. S. Nilson, of the Perry plantation, who was thrown from his buggy several months ago and painfully hurt, has quite recovered.

Mr. J. R. Maxwell, one of the cotton kings of Vermilion, left a few days ago for a short trip to his old home at Tuscaloosa, Ala.

P. C. M.

Avoyelles.

[Special Correspondence.]

Editor Louisiana Planter: In regard to the season with its rain and hot sunshine, I find not a few farmers who are willing and anxious to see for the present a short period of drier weather. It seems there is a surplus of moisture to spare, for the present at any rate. The past week may truly be classed as a wet one, for there was not a day but rain fell or could be seen falling on and over some part of the country.

At Barbreck and locality, the rainfall was during the past week much in excess of the wants of the planters and I found some of them growing anxious for a clearing off of the clouds and rain so as to enable them to start men and teams to ploughing.

It is wonderful to see how fast the weeds and grass have grown since it has commenced to rain.

Fields which I looked over two weeks past showing no appearance whatever of tie vines, crab grass, nor obnoxious weeds, to-day present a strong healthy growth of deleterious vegetation which the farmers will be compelled to remove before they can be assured of perfect success.

The late rains have been a decided benefit to the corn crops of this and neighboring parishes. But with all the rain which has fallen or may continue to fall from this date forward, I am satisfied that there is not going to be anything like enough corn made to supply the demands placed upon its use by the people who cultivate the soil.

The pea crop is now beginning to show above the surface in a manner to please those who plant the pea to keep up the fertility of their holdings.

Mr. R. L. Foster, of the firm of J. U. Payne & Co., New Orleans, proprietors of Barbreck plantation, has in contemplation establishing an irrigation plant with a sufficient capacity to fully water all the cane lands included in Barbreck and Cumberland plantations. With Bayou Boeuf the dividing line between the two plantations, there is no reason why the water can not be lifted from the bayou and poured out upon the growing cane and corn crops as often as the requirements may demand it.

It is hardly to be doubted that had there been a greater precipitation as early as the 12th or 15th of May over this entire section of the country the cane crops would have been fully 30 per cent. better than they are now.

For this reason, if no other, the planter who expects to come to the front and stay there must be prepared to irrigate his fields of growing cane through long periods of extreme dry weather to which we are more less subject during each occurring spring season.

The cotton planters are beginning to feel a little uneasy over getting so much rain at this season of the year. At present the weed is growing and developing (fruit) forms and flowers to the entire satisfaction of the farmers. But the land on which the cotton plants are growing is fast becoming grassy, and now needs to be ploughed and cultivated to destroy the growth of all objectionable matter which may interfere with the growth and maturity of the cotton plant.

In regard to the cane crops of our parishes, Avoyelles, St. Landry and Rapides, it may be said that the drought which prevailed may cause a loss in growth, setting the cane back from three to four weeks.

I am glad to say that the late rains have brought about a most decided improvement to cane on all places where planted.

If our industrious, alert planters can get a good rain, say once a week or every two weeks, during this and the following three months, it

is expected by those who are more familiar with the entire business of cane growing that there will be made a tonnage of cane per acre satisfactory to the cane growers.

ERIN.

St. James.

[Special Correspondence.]

Editor Louisiana Planter: With but limited local exceptions sufficient rain has fallen during the last month. Every day we have fearful electrical disturbances in the atmosphere, which for a time seem the signal for a first-rate downpour, but the alarm is all illusory. A pleasant feature of the existent rainy season we are having is that the precipitation is devoid of that weight which packs the soil and consequently beats down the tender plants. There is something refreshing and invigorating in the showers which produce immediate effect. Then there is time between each visitation to go over a patch of cane with the hoe gang, where it has a tendency to go "to grass." The moisture has not yet interfered with ploughing, although cane is considered dwarfish for this period of the campaign, owing to the dry spring we had. Laying by is the order of the day on many places. Stubble holds its own, is suckering and looks vigorous; in fact it should yield extra well with a favorable season from now on, both in tonnage and sucrose. Plant cane is doing all in its power to compensate for its defectiveness in stand. The process of distributing pease has been executed under the most auspicious circumstances; scarcely have they been sown when a welcome rain would follow the distributor, and like magic a green carpet greeted the eye the time a round was made.

Constant and thorough cultivation is no doubt the foundation, upon which to build a crop and is the main point to be observed in the agricultural department, but after many weary weeks of interminable clod rolling, I have often mused, There's a Providence which shapes our crops, rough plough them as we may. We have remarked how impervious to persuasion of plow or harrow were these obstinate boulders, but how by the action of a few rains they are effectively pulverized. How complacently we sometimes talk about the art of man, but how puerile it is when contrasted with nature's operations.

The improvements and repairs in operation on the many plantations we are aware of would fill a volume if given in detail. Where alteration was required, no delay was manifested in giving the order for same, consequently work in that line is well advanced. Larger mills and double mills are the articles most in vogue now. Most planters have finally realized that in adopting an improvement, the best theory is to get the best, cost what it must. Second-hand machinery has seen its better days, as all the material used in that line is direct from the foundry.

Messrs. Gaskins & Rolling, of Pike's Peak, have certainly put "a move" on their property. The building of a formidable levee necessitated many alterations in the house-moving line, with a very satisfactory result in the general appearance of the old place. The erection of

a new stable, with an immense capacity, is one of the principal achievements. As the prospects of a mammoth crop are very promising, a new mill will be erected to insure the safe and quick manufacture of same.

The Arment factory of the Miles Planting Company impresses one as having been the victim of an eruption of some kind. In one sense it has. The whole mill department has been entirely torn down, and in its stead entirely new machinery of greater power than the old is now in course of erection. To correspond with the milling capacity, three Murphy burners will be adopted. Other improvements are also being put up.

Mr. Lebermuth, of the renowned Salsburg plantation, visited Mr. J. K. Tucker, manager of the Miles places in St. James, recently. He honored Oak Alley with his presence during his visit, and pronounced the crop on it, and its neighborhood, as good as any he had seen.

Miss E. Tucker and Messrs. A. and C. Tucker have returned home for vacation from their respective schools, to the delight of their numerous friends in ST. JAMES.

St. James, Left Bank.

[Special Correspondence.]

Editor Louisiana Planter: As everywhere else, our vicinity has at last been visited quite frequently by good and beneficial showers, and they have not been so frequent as bountiful. Tuesday a week ago we had one of those regular flood rains, accompanied by a heavy thunder storm and wind which uprooted several trees, and to-day (Wednesday) as we are writing, we are having a hard rain and thunder peals are heard far and near.

The crops in general have been greatly improved by these long looked for June showers, as their condition prior to these rains which we had at the beginning of the month was actually deplorable; in fact, the planters were sad and gloomy about the existing circumstances, but the improvement is so marked that not even a shadow of the crops' deficiency is left. A green glow is reigning and one can hardly any longer distinguish the mark in the rows, so profuse is their growth. All are now busy at work "laying by" and trust with favorable weather soon to be done. The corn and pea crops are as ever promising, and notwithstanding the many complaints we hear of the bad state of the corn in its early stage it always turns out for the best afterward.

The view of the rice crops in general is very pleasing; on some places the crop is necessarily better than on others, but with the present state of affairs all are highly satisfied and from their own calculations expect to almost surpass their own realizations of the previous year.

The remarkable fall of the river has caused them all to start pumping, some being well provided and merely having to light the fire at its first necessity, while others had to prepare within the past week, and thus have added a large expense which they must exclude from the profits.

The improvements in the sugar factories

of Uncle Sam and Wilton plantations are progressing rapidly, the exterior of the buildings having been adorned by little towers which present quite a novel appearance. Your scribe has not yet had any exact news of the repairs that are taking place, but hopes soon to have a full and detailed description about them.

Since last I wrote an event of sadness has cast a gloom all over the parish, the death of Mrs. J. B. Mire, of Bon Secours plantation, which occurred on the 4th instant. She was the eldest daughter of Mr. Emile Bourgeois, of Rapidan plantation, and leaves three children, her husband and a host of relatives and friends with broken hearts to mourn her untimely loss.

Miss Bertha Tremoulet and little sister have been guests at the Helvetia home of Mr. and Mrs. Cherbonnier for a week.

CONVENT.

Trade Notes.

Lidgerwood Safety Derrick Engine.—The Lidgerwood Manufacturing Company, New York, has now in preparation a pamphlet describing the Lidgerwood Safety Derrick Engine. Their ordinary standard double-drum hoisting engine will operate a derrick safely, one drum hoisting the load and the other the boom. To obtain, however, the maximum capacity out of the derrick the changes of motion are so rapid that accidents frequently occur, hence the demand for a safe and rapid derrick engine which it is claimed is fully met in the Lidgerwood Safety Derrick Engine, patented February 9, 1897.

Louisiana Produce for Duluth.

DULUTH, Minn., June 10, 1898.

Editor Louisiana Planter: After an absence of several years, Mr. P. Beneteau, formerly president of the Duluth Produce Exchange here, a few months ago returned to this city to take charge of the Duluth Warehouse and Storage Company's business, and now proposes to add to the concern by adding a brokerage department for the handling of sugar, syrups, molasses, rice, glucose, honey, etc. Owing to the fact that this city's wholesale business is assuming great importance in connection with the development of the iron, lumber and wheat industries, necessitating great shipping facilities, both by rail and water, we think we can safely predict a successful enterprise on his part in the outset, and possibly the future establishment of glucose works in connection with a syrup refinery. In the meantime Louisiana products will be a specialty.

NORTH STAR.

Raising Cane in Florida.

It is useless to longer discuss the advantages of sugar cane over beets for the production of sugar. Observation and experience have already demonstrated the superior value of the sugar cane for the latitude of Florida.

The saying goes without contradiction that this State alone can produce enough sugar to supply the entire population of the United States. Whether or not this is an extravagant assertion it is not now necessary to discuss.

From the large amounts actually produced from small areas in the State it may be admitted that the State can supply the demand, and it is further demonstrated that the production, with anything like fairly good management, will be profitable from a pecuniary point of view.

Then the question comes up: Why do not more people engage in sugar cane culture?

Here's the problem: Given an almost indigenous plant; soil and climate eminently adapted to its perfection in growth and maturity; its product a valuable food element; the demand for it universal; its cultivation, and production not extra-expensive, but more certainly remunerative than most leading crops; millions of acres of land adapted to its successful culture; the best market on earth, and good money in it all the time. Now, why are not more people raising cane?

Why do capitalists pass sugar cane by and embark in sugar beet culture?

Why this seeming hesitancy to embark in an enterprise that has been demonstrated time and again to be safe, and a corresponding willingness to rush into sugar beet raising that has a thousand score failures laid up against it?

The case is clearly made; there is no use arguing the point; sugar cane is the sugar crop for Florida.

How to get more people to raising cane is the problem—*Cocoa News*.

Mr. E. F. Dickinson, who is connected with the large Georgia plantation of Mr. C. S. Mathews, in Lafourche parish, came down to the city on a visit during the past week and stopped at the Hotel Grunewald.

Mr. E. P. Munson and his estimable wife were guests of the St. Charles on Monday, having deserted their beautiful home in Assumption parish for a brief period.

Mr. J. B. Churchill, prominently identified with the sugar planting interests of Point Coupee parish, was in the city on a visit a few days ago. Mr. Churchill stopped at the St. Charles.

The Enterprise Refinery, of Messrs. Patout & Son, had for its able manager during the recent campaign, that well-known gentleman, Mr. George J. LeBan. Cash Pulliam, Esq., the old reliable, had charge of the vacuum pan, and was assisted by Mr. C. S. Meyers. Under these circumstances excellent results were obtained at the Enterprise, as a matter of course.

Maj. G. L. Hall, the distinguished attorney, writing to THE PLANTER from Week's Island, reports an exceptionally fine crop of cane there this season and everything in good shape. We congratulate the Major upon his good fortune.

Mr. Benjamin H. Pring, of the Oneida plantation, in St. James parish, was in the city on a visit last Monday.

Mr. E. A. Sammons was registered at the St. Charles Hotel on Sunday. Mr. Sammons is the distinguished engineer who had charge of the recent improvements in construction and of the operation of the splendid Cinclore factory, belonging to Mr. Harry L. Laws, in West Baton Rouge parish. Cinclore is justly rated as one of the most up-to-date and finely arranged central factories in Louisiana.

FOREIGN LETTERS.

Berlin.

[Special Correspondence.]

BERLIN, June 4, 1898.

Editor Louisiana Planter: The weather of the week just ended was very variable; there was rain and sunshine, warm and cold temperature, wind, and hail, but unfortunately those meteorological conditions as are now particularly needed by beet growers, viz., drought and warmth, were of the shortest, or, rather, no duration at all, and from this it may be readily inferred that the weather was again predominantly cold and wet, but the former more than the latter; and in the western provinces more than in the east. However, generally speaking, the crop is distinctly suffering, and, instead of retrieving the backwardness caused by the abnormal spring weather, it must be feared that it will rather increase if an early change does not set in. As to the field work, such as hoeing, thinning out and weeding, satisfactory progress has been achieved in most districts; but, partly in consequence of the unfavorable climatic circumstances, and partly owing to the ravages of insects, many fields must be resown, which is another great disadvantage, because of its being by experience sufficiently demonstrated that late sowings seldom result in a good crop. Any way, the situation is far from being brilliant and promising, and such is also the tenor of the reports from abroad. Austria, France and Holland complain likewise of moist and cold weather and its injurious action on the young plants. Belgium seems to be somewhat better off, whilst Russia enjoys nice weather; but a great many fields (in some sections the half of the entire area) are teeming with vermin, which have done already great harm and caused resowings on an unusually large scale, although Russia is always more subject to this plague than any other country.

The sugar factory started some time ago in Bulgaria does not seem to meet with much willingness on the part of the farmers to grow beets. The prospects of the establishment, which this fall is to have its first campaign, are therefore not the brightest. It is feared that there will not be sufficient raw material for the regular working of the factory, and this even caused the government of the principality to step in and use its influence with the farmers to induce them to grow more beets than they are engaged for at present. The Bulgarian ministry of agriculture, to achieve this purpose, will send emissaries into the country, whose task it shall be to make beet growing more popular. So far the country has drawn its supply of sugar principally from Austria, which is the nearest sugar-producing neighbor to Bulgaria, which even in the case that the above factory should ultimately prove a success, will remain a customer of the former empire for some further length of time, the production of one factory, as a matter of course, being not adequate to the requirements of consumption.

Day after to-morrow the much-spoken-of bounty conference will be opened at Brussels. The deliberations, it is said, will be kept secret,

but I hope that now and then a piece of news will leak out so that I might be able to keep you, to a certain degree, *au courant des affaires*. The United States is said to have expressed the desire to assist the conference without taking part in its action and without any obligation to carry out the resolutions of the conference, which, however, has been refused by the other powers. The prospects as to whether the conference will prove a success are, by the way, not at all satisfactory. Quite apart from France, whose position with regard to the so-called indirect bounties is sufficiently known, the other countries, more particularly Germany and Austria, will hardly resign their bounties when the system is not abolished in all countries concerned; such at least is the almost unanimous opinion of the fabricants of the two empires enunciated in meetings and by the special press, and to fulfil this condition appears from the outset hopeless, as a great many bounty-paying countries will not participate in the discussion to be opened in the capital of Belgium.

The Austrian government has on the 1st inst. submitted a bill to the parliament purporting to lay a tax on the sale of sugar. This tax has a new name, but it is only an addition of 6.6 fl. to the already existing tax of 6.13 fl. In one of my former letters I alluded already to the then proposed measure, which is to come into force on August 1, provided the two houses of the parliament adopt it.

The liberal mood of the English government, after benefiting the West Indies, is now also extending to Mauritius. To this island a loan has been granted amounting to £200,000, to be reimbursed after one year; but it is believed that only the estates not heavily mortgaged will have their share in this loan. But there is still another plan in the field, which, for the moment is under consideration in the ministry of colonies. The planters of Mauritius petition for a credit of £500,000 to be repaid in twenty years. Of this sum £400,000 shall be employed for the support of the sugar factories, whilst £100,000 shall be used for irrigation and the planting of forests. Of the first named amount part shall be applied to the construction of an experimental central factory, by means of which the advantages shall be demonstrated arising from a complete extraction of the juice, no matter whether by pressure or by diffusion; furthermore, the purification of the juice by electrolytical or other processes shall be the object of special researches, and besides the concentration of work shall be thoroughly studied in order to lower the cost of production. It is certainly not to be wondered at that after the long protracted depression in the sugar trade the sugar countries cry for help; but strange it is that England, who so boldly agitates for the abolition of bounties, in the very same moment is granting subsidies to her colonies which are as similar to bounties as one egg to another.

The tone of the markets at the reopening after the holidays was quiet, but betrayed a firm undercurrent, inasmuch as the volume of business has not been of much amount, whilst prices were fully maintained and even gained

some slight advances, which also augurs well for the further course of the article now rising in the favor of both speculative and *bona fide* buyers. In Germany prices close about on a par with those of last week, viz.: 10.55 to 10.80 marks for actual 88 per cent., and 9.80 marks f. o. b. for delivery June at Hamburg. Refined were more active and in some cases 25 pennings higher.

ROBERT HENNIG.

British Honduras.

[Special Correspondence.]

TOLEDO, B. H., June 13, 1898.

Editor Louisiana Planter: The rainy season has stopped grinding operations, although all the plantations did not finish. As soon as the rainy weather begins it doesn't pay to try to make sugar; in fact there is but little it does pay to do. Cultivation is done under difficulty, as cloudy weather keeps the grass alive even after it is hoed, and as a matter of fact our seasons are not much longer here than the grinding season of Louisiana, and more money should be invested in machinery to take off the crop in a shorter time, so as to get all the sugar hauled to the market as well as to get other work done up while the weather is good. The yield of sugar this season was good, better than was expected, and the young cane that is springing up is very fine. Sugar is dull in the market and it is only that the planters hold back their supply that prevents the market being glutted and the price fall below cost of production.

Dr. Pearce, who was making white vacuum pan sugar, has been compelled to take 4½ and 5 cents for it, and even then the natives will take the common muscovado sugar in preference to it in many cases at the same price. It is evident it will have to be pioneered perhaps for years before it will be used in preference to the low grade sugar.

In the island of Jamaica, where vacuum pans have been in use for years, the product of this apparatus does not seem to be popular. The better grades of sugar are in more general use on the Spanish coast, and probably there will be a demand for sugar of that quality produced in this colony.

Sugar planters were in hopes the war would improve the price of sugar, but while it has caused a rise in all imported provisions, sugar has not felt the effect of it, here at least. The labor system in the colony is very unsatisfactory and discouraging to planters. That is another reason why crops should be taken off in a shorter time. When a planter engages a gang of men at the beginning of the season they get their advances and spend it and begin work in debt, and they generally work well for six weeks or two months, and if the proprietor could finish his crop in that time he would get good service out of his men.

TROPIC.

Mr. Charles E. Grace, of Plaquemine, was in the city on Wednesday and put up at the Hotel Grunewald.

Mr. A. A. Bonvillain, a prominent sugar planter from Glencoe, La., was in the city recently on a short visit. He registered at the Commercial.

BEET SUGAR.

Instructions for Beet Culture.

The Agricultural Experiment Station of the University of Nebraska has just published a bulletin giving instructions for beet culture, which will be very valuable to the thousands of farmers in the West who are now experimenting in this important culture. We note that it is said that the beet requires about four and one-half to five months after planting to reach maturity, and that this point should be indicated by the outer leaves turning yellow and drying up. To harvest the crop a beet-loosener is recommended, which breaks the tap root and lifts the beet slightly out of its bed, whence it can be easily lifted by hand.

In order to secure accurate information in regard to the industry ten points are given on which the director asks for information from all those who will experiment under his instructions. The points are as follows:

1. Character of the soil.
2. Actual value of the land per acre.
3. Cost of ploughing and subsoiling.
4. Cost of preparation for planting.
5. Cost of planting.
6. Cost of thinning and cultivating.
7. Cost of harvesting and topping.
8. Approximate cost of delivering at a distance of, say, six miles.
9. Exact area cultivated.
10. Exact weight of beets harvested.
11. Exact weight of beets after topping.

Lehi, Utah.

Joseph Geoghegan, of the Lehi Sugar Company, said yesterday that, with recent rains, the success of the beet crop was assured, and that he expected to see 10,000,000 pounds of sugar turned out of the Lehi plant this year.

The output of the same plant in 1897 was 3,500,000 pounds, the beet crops having fallen short during that year. Mr. Geoghegan, who recently visited and inspected the plant which is under construction at Ogden, says the machinery is now being put in, and that the plant will turn out at least 4,000,000 pounds of sugar this year. The intention at present is to start up the Lehi plant early in September, and to run it at full capacity from the start.—*Banner*, June 7.

Eddy, New Mexico.

The long-desired rains have materialized; and they are rains of a character to do the most good—both gentle and dashing. Gentle, that soak slowly to the grass roots, and dashing that flow rapidly to the dry depressions of the prairies and filling them furnish abundant stock water, thus permitting stockmen to move their cattle and sheep away from the river to the back ranges. Sunday night was the date of the first good rain. Another followed Monday night, and the weather has been cloudy and slight rain falling intermittently almost

every since. It is very welcome and computed on a monetary basis is very valuable, as it guarantees plenty of water for irrigation, good range and plenty of stock water.

William Bardenheuer, head draughtsman for Fred. W. Wolfe Co., of Chicago, arrived from that city with Manager Goetz, Tuesday, and will make drawings and plans for placing new centrifugals, mixers and the Bock system of crystallization and motion in the local factory. The actual work of putting the new improvements in place will commence about August 1, and will be completed by September 15.

Asked as to the present condition of the beet crop throughout the valley and what effect the recent rains had upon the plants, Manager Goetz stated that the showers had proven most beneficial. Regarding the crop situation as a whole, he said that the management was well satisfied. The germination was all that could be desired or asked for. Failures this year will be due only to neglect upon the part of growers who fail to properly cultivate their ground and carefully keep down weeds. Too much stress can not be put upon the latter point, for where weeds are permitted to grow a poor crop is sure to result. They draw largely upon the soil to the detriment of the beets, both as regards size, purity and sugar content.

A sufficient acreage is already assured to guarantee the factory a run of sufficient length. The stands of beets are good, and they are making a healthy and vigorous growth. In fact they are growing so rapidly that it is difficult to care for them properly. Thinners are needed. Quite a number of tracts have been thinned, but there are many more now needing that attention. The factory management states that it could use 200 men and children for that purpose if they could be secured. There is no excuse for idle people in Eddy while beet fields are unthinned.

Planting is still continuing and will not be stopped, in all probability, until July 1.—*Pecos Valley Argus*, June 10.

La Grande's Sugar Factory.

A more accurate conception of the proportions of the main sugar factory building is being furnished as the big sections of the steel framework are going into place, says the *Chronicle*. The work was necessarily suspended during the past few days on account of rain. This part of the work is not more than one-fourth completed, and after the big pieces are put in place they will be securely bound together by thousands of rivets. The riveters have just about finished their work at the Ogden (Utah) factory, and in a short time begin on the factory here.

The tracklaying at the factory grounds is practically finished, and there is almost daily accumulations of material and machinery. All the structural steel has arrived and several cars of machinery, the latest invoice in the machinery line being four cars which arrived this morning.

Messrs. Eccles and Nibley and other factory people are well pleased with the general situation of things. The buildings are being put up in the most substantial manner; the outlook

for the beet crop is most encouraging and everything promises success. It is very evident that the factory construction will require steady work with a big force from this time forward in order to have the same in readiness to handle the beet crop. Superintendent Granger anticipates that work in double time and possibly with disregard to Sunday and holidays will be necessary during the summer months.—*Baker City Democrat*.

Raising Beets for Sugar.

All the sugar beets planted in this State are for experimental purposes, the object being to learn whether beets of satisfactory quality can be grown, and whether, from the results of experience with the crop on a limited scale, farmers may consider it advisable to grow beets on a larger scale in case a factory should be built and furnish a market for the crop.

In conducting experimental work of this kind, it is of the utmost importance that the work be properly done. Every case where the work is improperly conducted, and beets of poor quality are therefore produced, is not simply so much labor lost, but, since all results must be taken into consideration, it is a positive injury to the locality where the bad work is done.

The thinning of the beet fields is one of the most expensive and important parts of the work. No absolute rule for thinning can be given, since all lands do not require the same sort of work. For loams that will produce fifty bushels of corn per acre in a favorable season, the beets should average eight inches apart in the rows when the rows are twenty to twenty-four inches apart. For stronger lands the beets may be allowed to stand somewhat closer, say six inches. For poorer lands the beets may be ten inches apart. The purpose is to raise beets weighing between one and two pounds each.

The beets are ready to thin when the plants have produced four leaves. It is not necessary that plants should be exactly six, eight or ten inches apart, but that this should be the average distance. If two strong plants are four inches apart, it is better to leave these two strong plants than to have one strong and one weak plant. When the plants are thinned, care should be taken to remove all weeds from the rows. If this is done thoroughly, the plants will afterward only need cultivation to keep down weeds between the rows and to keep the soil loose on the surface. It is not necessary to ridge the earth up along the rows unless the roots show a tendency to project above the ground.

During July and August the leaf-spot disease sometimes appears on the leaves in the form of small brown spots. If this should make its appearance, the beets should be sprayed with Bordeaux mixture.—*H. A. Huston, Chemist, Purdue University Experiment Station*.

Beet Sugar Manufacture in Victoria, New South Wales.

A special reporter of the *Argus*, sent to investigate the circumstances of a labor difficulty

which had arisen at the Maffra sugar factory, Gippeland, gives some interesting particulars of the works. We take the following: The brick buildings, with water scheme and other equipment, cost \$235,000, and inside there is a plant massive in every detail, the very latest and best that was to be had for money, and which cost about \$40,000 to place in position. The only hitch so far has been with a complicated Belgian machine, which at one operation was to have done the work of lifting, cleaning, and topping the beets in the field ready for the mill. It seems to work all right, but as the manager, Mr. J. Salatney, remarks, the chief defect is that the machine can not be made to think. Consequently, the beet-digging will be done by a couple of simple German machines, which can each get over from three to four acres per day, and the topping will be performed by hand. As the mill stands ready for use, its equipment is most thorough. There is a reservoir, filled by pumping from the Macalister river, 9000 tons of firewood stacked ready for the boilers, and 2000 tons of limestone, one of the great essentials in sugar making. This is brought by rail from beyond Sale, the quarries being at Armadale and Dutton. Lime is required in the proportion of about 7 per cent. of the bulk of beet treated.

The first sugar beets will probably be put through the mill about the 23d or 24th inst., but this year's campaign—as the sugar makers call their working season—will be a short one. It will not last longer probably than two and a half months, though later on the regular campaign will be about double that period. It was expected that this year's beet crop around Maffra would have been 1700 acres, with a yield of twenty tons per acre, but the late sowings in this exceptionally dry season were a failure, much of the seed not germinating until too late to be of use for sugar making. Therefore, the crop will be limited to about 1800 acres, with a yield of perhaps twelve or thirteen tons per acre. The first failure of the crop naturally suggests the question as to whether the mill may in future command the raw material it requires, and Mr. Salatney has no doubt whatever about it. Within a radius of ten miles of the mill there are 80,000 acres of some of the finest beet-growing land in the world, and if success justifies it, lesser working plants may in time be put down to evaporate the bulk to one-eighth its weight, thus greatly lessening the cost of carriage to the central mill. The area being prepared for next year's crop already promises work for the full campaign.

MANUFACTURING OPERATIONS.

Some vague idea of the operation may be given by following roughly the beet from the field to the sugar bag. Brought to the mill by road or railway siding, it is tipped into a huge bin, underneath which a channel of water runs. The trap-door flooring can be withdrawn, so that the beets dropping through are carried by the running stream into the mill, where they are picked up by a rotary elevator, in the form of a huge iron wheel, with scoops attached, and so lifted into an iron cleansing trough. In this a spindle, with a number of

attachments exactly resembling the propeller of a steamship, revolves, and the beet is not kept in motion in the water, but, owing to the shape of the iron flanges, is moved along, the trough getting gradually cleaner in its progress. Even with the cleanest looking beets there is a 5 per cent. allowance for dirt, and test washings at the outset decide whether any greater deduction is necessary. At the end of the trough the beets are caught in another elevator, consisting of an endless chain with barred rakes—so that the water escapes—and before entering the slicer they are automatically weighed by a most ingenious system. The vessel holds just half a ton, and when exactly that weight has been received it tips over, empties the load into the slicer, and drops back into place again. The slicer reduces the beet into small chips, and passes them to the diffusion battery. There are fourteen of these diffusers, and as the liquid passes from one to the other it is reduced, so that with each successive stage it contains more syrup and less water, while undesirable constituents, such as the gummy matter, natural salts, and other chemical ingredients, are also extracted. From this process it issues, a thin wine-colored liquid, to another stage in the working, where milk of lime is mixed with the syrup, all nitrogenous substances precipitated with the lime, and the poisonous carbonic acid gas carried off by special valves to an escape outside the roof. This is known as saturation, and followed by filtration, it is twice repeated, the syrup being forced through a set of sixteen filtering chambers; and from these it issues a sweet, palatable liquid, in color very much like a light chablis. What has been taken from it in this process is known as "scum-cake," and as it contains lime, phosphoric acid and nitrogen (three important elements in plant food), it can be returned to the land as a valuable manure. The next stage is scientifically known as "the quadruple effect evaporating apparatus," and finally to the centrifugals.

Each successive stage in the manufacture is the up-to-date consummation of years of study and experiment by the best scientists of Germany—science, indeed, dominates the process from beginning to end, and makes it wonderfully fascinating as a study. From the time the beets enter the mill until they leave it as sugar nothing has to be handled. Everything passes mechanically from one stage to the other—entering the factory at one end and leaving it at the other. There is a fine laboratory in the institution, where Dr. H. Riesen, a German chemist, and Mr. H. Easterby, son of the journalist of that name, well known in Melbourne and Sale, watch every operation, and analyze the sugar at every stage of its manufacture. Nothing is left to hazard or conjecture in sugar making.

The contract for the building of the mill was let to Messrs. Waring & Rowden, of Melbourne, and as the foundation-stone was laid on the 19th of June, no time has been lost over it. In addition to the members of the staff already mentioned, there is an assistant manager in Mr. G. Bartech, a secretary in Mr. F. C. Barley, and four German experts, each of them

skilled in particular stages of the manufacture. One can not help being impressed with the very deep interest everywhere displayed in the enterprise, and in the town of Maffra a growers' syndicate was formed, so that the factory should be sure of a fair bulk for treatment in its first season.—*Mackay Mercury*, April 16.

Cane vs. Beet Sugar.

Editor Louisiana Planter: Edward F. Atkins has lately published the following interesting figures of the sugar crop of the world for the past year:

CANE SUGAR PRODUCTION IN TONS.

West India Islands and South America.....	1,139,000
United States.....	275,000
Europe and Hawaiian Islands.....	1,432,000
Total cane sugar.....	2,846,000

BET SUGAR PRODUCTION IN TONS.

Europe.....	4,951,000
United States.....	40,000
Total beet sugar.....	4,991,000

Total sugar production of the world 7,887,000 tons, which was an increase over the year before of 532,760 tons. That is a large amount of sugar, but there are many millions of people to consume it. It is an interesting example in mathematics to figure out how much *per capita* that is to the world's production.

The above figures are of great interest, when one considers the vast area of sugar cane land idle in the United States, that is now an original forest which might be utilized. It is no more trouble to produce a crop of sugar than a crop of corn, and more money in it.

In South Florida the cost may be figured out as follows: Cost of cane, \$1.50 an acre; clearing the land, \$15 an acre; total cost of land, \$16.50 an acre. Now if you charge the interest at the legal rate, which is \$1.32, making a grand full total of the cost of the land the first year \$17.82. But it is better to charge the interest as a part of the crop. The average cost of a ton of cane grown and delivered to the mill is \$1.60. The average in South Florida is thirty tons to the acre. Thus the average cost of an acre of cane delivered to the mill is \$49.32, which includes interest on cost of land and clearing it.

In New York State I doubt if good sugar beet land can be purchased for less than \$50 an acre. The legal interest is \$3. Average cost of a ton of beets grown and delivered at the factory is \$3.05. Average yield is 13.6 per acre, including the interest. An acre of sugar beets would cost \$41.98 to grow and deliver to the factory.

The average yield of an acre of cane is 3600 pounds of sugar. In South Florida it is 4000 pounds at least. At an average price of five cents a pound and 3600 per acre, we have a gross return of \$180, or net \$130.68 per acre for cane sugar. This is quite good for land costing \$16.50 per acre.

The average yield of beets is 2130 pounds of sugar per acre, or gross \$106.50, or \$64.52 net per acre, which is also quite good for a parcel of land costing \$50.

Cane once planted will make four crops from

the same planting. Beets must be planted each year. Perhaps in the north part of the cane section where there are heavy frosts and occasional freezes each winter, cane must be replanted each year. That is not the rule in South Florida. It has been proven that if the cane juice can be filtered through Spanish moss it will make white syrups or sugar, even if boiled in an open kettle. That fact gives every grower a chance to have his own sugar or syrup factory at his plantation; so to an extent he can dispense with the delivery of his cane to the big but somewhat distant sugar factory. The grower of the sugar beet has not that advantage.

In 1897 the people of the United States consumed 1,960,000 tons of sugar, of which they produced 815,000 tons. It is said that this country pays \$100,000,000 per year on the average to Europe for sugar. The 1,645,000 tons of sugar produced in 1897 abroad cost at least that amount. There are certain politicians who want free silver coinage, but none have proposed the coinage of more than \$100,000,000. All know that every dollar sent abroad is just that much taken from the home circulation. If this country produced all of its own sugar there would be at least \$100,000,000 more in circulation. That fact ought to be sufficient incentive to increase the sugar industry equal to the home demand. Lately Congress appropriated \$50,000,000 to increase the United States navy. That is one-half what is annually paid foreign countries for sugar. If for the past ten years we had grown and made our own sugar, and had used one-fourth of what has been sent abroad for the increase of our navy and fortifications, our people would not be worrying as to what nation is the best equipped for war. No power would have dared to make an attack upon this on either land or sea.

I do not wish to belittle the beet sugar industry, but to call to the attention of those farmers who are struggling on mortgaged farms, each year growing crops of which the world has a surplus, that the farmers of the United States can supply the people of the nation with sugar and keep \$100,000,000 of hard-earned money at home. I also wish to wake up the Southern people to the fact that they are neglecting a great industry; that less cotton and more sugar cane should be the rule. Sugar cane being as easily grown as corn, the South, with its cane fields, can be far more thrifty and prosperous in the sugar industry than if busy in making crops of which the world has an overplus, and usually producing those crops upon mortgaged farms.

Florida can produce cane sugar; its mortgaged indebtedness is \$40 *per capita*. New York State can raise beet sugar; it is the great Empire State; it is an empire of mortgages, having a mortgage indebtedness of \$268 *per capita*, or 42 per cent. of its assessment. The least mortgages are in the South.

In cane versus beet sugar the verdict must be for cane, as any one who is a grower of cane, on either a mortgaged or an unmortgaged soil, can grow and manufacture sugar on unmortgaged land in Dixie.

The industry should be encouraged both

North and South, as the thrifty farmer will find it a mortgage lifter and a maker of home comfort.

PETER PRINDLE.

Avon Park, Fla.

We think our correspondent is a little off in his estimates as to Florida cane culture in particular, and as to the sugar industry generally. While we believe Florida can make an immense amount of cane sugar and will do it in the course of time, still she has not developed the industry as we had hoped when the Disston Company began its sugar work at St. Cloud. The sugar industry, cane or beet, offers no royal road to wealth, but demands plain hard work and lots of it, to make it a success. American pluck, skill and ingenuity seem now to be solving the American home-grown sugar problem, in which the cane and the beet will be the chief factors, and Louisiana, Texas and Florida the chief cane sugar producers. We shall welcome Florida into our trinity of cane producers, but she must not deceive herself with expectations of thirty-ton average crops of sugar cane from Florida soils.—EDITOR LOUISIANA PLANTER.

The British West Indies 160 Years Ago.

There has been recently found in the correspondence of the Travers family, the members of which have been merchandising in London for some two centuries, a quaint letter describing life in Antigua in 1738. Antigua had long been noted as a sugar producing island, and quite a fraction of our sugar literature had its origin there. About a half a century ago Mr. Thomas Kerr, a sugar planter of Antigua, wrote "A Practical Treatise on the Cultivation of the Sugar Cane and the Manufacture of Sugar." It was an excellent little handbook, and will be found in many sugar plantation libraries now. It is only five years since Professor Francis Watts, government chemist of Antigua, wrote "An Introductory Manual for Sugar Growers," in which he discusses the sugar industry along modern lines. One hundred and sixty years ago sugar was produced in Antigua under the old slave regime. The following letter, taken from the *London Produce Markets Review*, gives an account of Antigua and of the sugar industry under conditions that seem very singular in these modern days. Mr. Wm. Smith, the writer, says:

MY DEAR SISTER—I am obliged with your favor of the 18th May, for which return my thanks. As you hope, so I can say by this time I am pretty well reconciled to the heat of the climate, for nature has been kind in the forming of a temper disposed to suit itself to any clime or state in life, and that which at first entrance is tedious and irksome by little use often becomes agreeable, and as this disposition of body is equally favorable to a good or evil habit; (give me leave to infer that) herein lies the great work of reason to direct us in the choice of, and here is required our strictest good. For one step beyond the bounds of right and the fitness of things is one step down a precipice, which must require some pains to recover, if we escape without injury. So much for moralizing.

I don't wonder, sister, at your imagining that each day here affords some pleasing variety. I expected myself much more than I have found, and this error must proceed from a want of knowledge of the world, of which though the different parts are by nature formed to yield more or less pleasure and satisfaction to the inhabitants, yet every person by considering the state of his own country, and the accounts given of others, may form a good judgment how far they abound or are wanting in the common pleasures of life, and on comparison believe few will be found to exceed or equal England or the Isle of Wight duly weighing all the good and evil circumstances on both sides. Consider; the far greater number of people in any country, have fixed habitations; of all ranks and degrees. As to our nobles, what subjects in the world can support a greater grandeur and the magnificence from their own private estates; who can compare with our commons for abundant possessions and privileges, and where are the poor and disabled better provided for and taken care of. No country in the world enjoys such extensive liberty; and whose property is so secure. Our clime is a happy temperature of warm and cold without extremity; and is not without most agreeable variety of seasons. To its fertility many parts of Europe are obliged for their daily bread; nor is there a thing wanting in it necessary to health or recreation; and to crown all Providence has divided us far off from our enemies, and bid the raging sea to be our sure defence. But still you fancy there must arise a continued scene of pleasing variety from the sight of foreign countries and people. Yet it is acknowledged by all who have experienced that 'tis a pleasure which soon palls on the appetite and grows insipid, mixed with many troubles and inconveniences and often dearly purchased.

I shall now proceed to give you a short description of this island and its inhabitants, by which you may partly judge what manner of life we lead here. The situation of Antigua, distance from the continent and the other islands you will find by the map. It is from east to west about twenty miles, and about twelve from north to south; very mountainous and rocky. On the mountains are several sorts of woods, very serviceable in building; they are in many

parts cleared for large spaces of ground; and there are many on whose tops never any white people were, being covered with woods, briars and rocks, and in these the runaway negroes chiefly inhabit. The soil is partly clay, black loose earth and some chalk hills, of which but few, the whole island almost planted with sugar cane, and very little pasture. On the west end is the harbor of St. John and the town at the bottom of the harbor. It stands on as much ground as Newport, very regularly laid out, but not so closely built; the houses (except a very few new ones) built of all wood covered with shingles, and in general only one floor and no chimney; from January to August there are many ships here which animate the country, but at other times believe it must be very dull. They reckon on the island about 1200 men able to bear arms, and the negroes in all about 27,000; so you may imagine how many black people are seen to one white. The black men and women go almost naked and the young children quite so. In every family there are more black servants than white people; and in the plantations of hundreds of negroes there is not generally more than two white men—the master and the overseer.

You will therefore think it necessary that the strictest discipline should be kept over the negroes for security of the whites, who indeed seldom excuse any faults in their slaves. I can not give you now a particular account of the manner of life and the business of a slave here; it will take up too much room. Perhaps I may at another time; but must say I think they are the most miserable people on earth. and that to be a freeborn subject is the greatest blessing in this life. But to proceed, there are besides St. Johns, two or three small towns in different parts of the island which I have never yet seen. The inhabitants consist chiefly of planters, who live in the country; the town is inhabited by some resident merchants, shopkeepers and handicraft people, and many taverns or eating houses for the entertainment of transient people who come hither with cargoes of goods from Great Britain, Ireland and the northern colonies in the crop time, and return home with sugars, rum, cotton and ginger, which are the only produce of this island. From these the people are supplied with all necessaries. The northern colonies furnish them with timber and boards for building; staves and hoops to make their casks for the sugar and rum; flour for bread, and some provisions, such as beef, pork and herrings and salt fish, and also horses for their works. From Ireland they receive large quantities of provisions, butter and some Irish linens, and from Great Britain all sorts of dry goods. The island itself produces more fresh provisions than the others near it, and sufficient to supply the better sort of people very well; the beef is but indifferent; veal, mutton and lamb very good; kid is so common here; the poultry in every kind very fine, and plenty of fine fish. The common produce of the kitchen garden, salleting and cucumber, very good, and at all times of the year. Plenty of fine roots, and potatoes of many different sorts. Sundry pretty fruits, besides muskmelon, oranges, lemons, limes; and that excellent

fruit, the pineapple, which is very rich and delicious. Madeira wine and water the common drink, though many, especially the middling people, use punch.

After this account you will say we have no reason to complain for want of good eating and drinking. Perhaps you may expect I should say something of the water, therefore shall confirm the common opinion that this is an island without water—that is, without water fit to drink; there are some small springs, which are all, more or less, brackish; though the negroes in great droughts have been obliged to drink some of them, and others have been forced to distill the water to make it drinkable for their negroes. There is not properly, a river in the island, but some small gutts, supplied by a few springs and the rain washing from the mountains. Several large ponds are made at the public expense to receive the rain water, and most gentlemen have cisterns, which water run through a stone is very fine and pleasant, and what alone we have to drink. But all our care and art will not make the climate so agreeable, nor remove several inconveniences attending it. The length of days throughout the year differ not much; the sun rises soon after daybreak, and night comes on as soon after its setting, so that we are scorching all day; and was it not, indeed, for the fresh breezes we have constantly, from about 9 o'clock to 4 or 5 o'clock in the afternoon, it would be impossible to live here long. The evenings are frequently cool, and would be pleasant were it not infested with numbers of mosquitoes and merrywings, which are an inveterate enemy to any ease or peace; their sting is very troublesome and teasing, as well as painful; with strangers' blood they make great havoc, but after two or three months, they are more tolerable; we sleep under pavillions, for no place is free from them, but in the morning, after the sun rises, they retire to holes in the earth and the woods, near the water and lowlands. Great numbers of lizards and snakes in all parts, whose singing with the crickets and grasshoppers sounds in the night like the bells of a large string of pack-horses. Here are spiders of a very large size, and 10,000 other disagreeable insects. Land crabs in great numbers, which burrow in the earth; of these the negroes eat plentifully; and the black crabs, a particular sort, are accounted a dainty dish among the whites.

Thus I have given you a rude and imperfect description of the Island of Antigua, and what is here said may be generally applied to the other islands. It may afford you conversation for half an hour and be some little amusement. I have already spun this to an immoderate length, and can only tell you I am much mended in my health, and to hear of all your welfare is the great desire and the greatest pleasure to be communicated to your affectionate

WM. SMITH.

The Philippine Islands.

There is probably no better informed man in the United States about the condition and resources of the Philippine Islands than Mr. F. F. Hilder, the secretary of the National

Geographic Society. And, by the way, there is more than the customary amount of misinformation current on this subject. For instance, our consul at Manila, in a recent report to the State Department, is quoted as saying that "the island of Luzon, on which the city of Manila is situated, is larger than New York or Massachusetts;" and that "an idea of the extent of the Philippines may be formed when it is stated that the six New England States, New York, New Jersey, Maryland and Delaware, have 10 per cent. less area." In point of fact, the island of Luzon has an area of less than 41,000 square miles, or 7,000 square miles under the area of New York, and so far from the combined area of the islands being in excess of that of the six New England States, New York, New Jersey, Maryland and Delaware, it is in reality 12,544 square miles less. In Mr. John Foreman's book on the Philippine Islands, their total area is given at 52,500 square miles. To be accurate, the combined land area of these islands is at least 114,356 square miles, or about equal to the combined area of New York, Connecticut, New Jersey, Pennsylvania and Maryland. Again, there comes from San Francisco a statement from a gentleman just returned from a residence in the Philippines to the effect that the poll tax annually levied by Spain on the natives is equal to \$18 on each male and \$14 on each female inhabitant. As the average earnings of these people do not exceed 5 cents per day, and as holidays are numerous, the impossibility of paying such an impost is sufficiently obvious. As a matter of fact the Philippine head tax does not exceed \$2 of our money, though, considering the ability of the people to pay it, the statement may safely be hazarded that it is quite as oppressive as one of \$30 a head would be here.

Mr. Hilder is decidedly of the opinion that no such prize as the Philippine Archipelago has fallen into the hands of any nation since England acquired Burmah. He thinks that to sell it with all its vast opportunities and incomparable location for commerce to any other nation, or even to release it for a cash indemnity, would be an act of gross folly. He points out that a glance at the map of Asia will convince any intelligent observer of the wonderful natural position of these islands for attracting and controlling a large share of the commerce of the East. A few hundred miles to the north are the ports of China, with all the possibilities opening up of the enormous market of that ancient empire; still nearer is the island of Formosa, now in possession of the progressive Japanese, and to the northwest is the island empire of these Yankees of the East. To the southwest lie the British settlement on the island of Borneo, the great commercial city of Singapore, and the Dutch islands of Sumatra and Java; while to the southwest and south lie the islands of the Eastern Archipelago—New Guinea and the continental island of Australia. What better centre and emporium, asks Mr. Hilder, could be desired as a point of distribution for our manufactures and for the assemblage and return of the products of the East? He regards Manila as holding from its position the key to

the Eastern ocean as emphatically as Havana does the key to the Caribbean sea.

As a resident of several years in the Philippine Archipelago, engaged in a business which required frequent journeys into the interior, Mr. Hilder is a competent witness as to the latent wealth of the mines and forests of these islands. He enumerates ebony, cedar and logwood as existing in profuse abundance, in addition to the ever-present cocoanut palm, which supplies so many of the natives' wants, and he insists that camphor can be had in the Philippines as readily as in Formosa. All the tropical fruits flourish there—the orange, the mango, tamarind and guava. Mr. Hilder points out that the most important vegetable product of the Philippines, which is known as Manila hemp (native Abaca), has really no relation to the hemp plant, but is the fibre of the stalk of a species of banana or plantain (*musa textilis*). Gold unquestionably exists in the Philippines, but the search for it has been discouraged by the Spaniards, who were decidedly adverse to having the secrets of the most highly prized of their possessions laid bare through the rush that would attend the discovery of gold mines. There is no question of the existence of large deposits of copper, and equally none as to the presence of iron ore and bituminous coal beds, extending, in two cases at least, from island to island under the sea. The methods employed to extract sugar in the Philippines are of the most primitive character, the pressing being done by hand, or at most by the aid of a mule, and the syrup boiled in an open pot. Of the centrifugal process of refining the Manila planter knows or at least practises nothing. The value of 3½ cents per pound placed by Consul Williams on Manila sugars, as the average value of the last ten years, is therefore absurdly in excess of the true range of price for this kind of product. But even more than in Cuba has nature been bountiful in the Philippines to the sugar planter. Mr. Hilder says that he has seen fields of sugar cane which had not been replanted in twenty years still yielding a product of satisfactory saccharine richness. The coffee of the Philippines, though hardly known outside of Spain, occupies a very high place, and the so-called Manila tobacco has the same vogue east of the Cape of Good Hope that the Havana product has west of it. The manufacture of cigars in the islands is a government monopoly, the chief factory being in Binondo, the commercial suburb of Manila, in which 9000 young women and girls are employed.

The two special advantages which give Manila its commercial importance are its magnificent bay in front—an expanse of deep water 120 miles in circumference—and the lake of the bay (Laguna de Bay) behind it—a shallow lagoon navigable by small vessels which, through the river Pasig, renders easily accessible a considerable stretch of the interior of the Island of Luzon. When it is remembered that there are absolutely no roads in the interior of these islands, and that railways are practically non-existent, the importance of such a water highway in contributing to the commerce of Manila will be readily under-

stood. Though Spain has had the islands for 300 years, no accurate survey has ever been made of any of them, and the interior of the largest of them is still unexplored. The possibilities open to American enterprise here are thus almost indefinite. The commercial class is at present largely composed of Chinese and Chinese half-breeds. Throughout the islands, or at least in all the larger towns and cities, the bulk of the retail trade, as well as banking and money-lending, is in Chinese hands, and there are in the Philippines many Chinamen of considerable wealth. The islands are divided into provinces subject either to politico-military governors or alcaldes mayores, who are generally civilians. Spanish ingenuity has been chiefly exercised in the imposition and collection of taxes, and woe be to the unhappy native who fails to meet the demands of the tax-gatherer. He is arrested and imprisoned or deported to a penal settlement, and his family, if he has one, is left to shift for itself. In Mr. Hilder's opinion, we shall have no difficulty in giving the Philippines a good, just and strong government, and in securing the peaceful submission of the people. He maintains that under the Stars and Stripes Manila will become one of the greatest emporiums of the world's commerce.—*N. Y. Journal Commerce*.

The Philippine Islands.

During the last few days attention has been directed toward the Philippine islands, the objective point of the United States Asiatic squadron, which sailed from Hong Kong on April 27, to engage the Spanish fleet. The Philippine islands are an archipelago southeast of Asia. They extend almost due north from Formosa to Borneo, and they separate the South China Sea from the Pacific Ocean. The number of islands in the Philippines is variously estimated from 1200 to 1400, and it was not until the last few years that some of the larger islands were explored sufficiently to enable their areas to be accurately computed. According to Domanns' map (1882) the area of the islands was 111,356 square miles. The two largest islands are Luzon (area 40,024) and Mindanao. Their aggregate area is 52,650 square miles.

The islands were discovered by Magellan in 1521, and Manila, the capital, was founded by Legaspi in 1571, and since that time they have been under the dominion of Spain. Their conquest and retention was in marked contrast to the usual Spanish methods of dealing with conquered people—methods of which Cortez and Pizarro are the chief exponents. Legaspi with six Augustinians and a handful of soldiers accomplished the wonderful work of conquest. Without greed for gold and without any exhibition of cruelty or persecution, these devoted men labored among the docile people until they won their confidence, so that the islands were seized with little bloodshed and no massacre or depopulation. The name "Iles Filipas" was given by Legaspi in 1587. Contests with frontier rebellious tribes, attacks by pirates, earthquakes, and typhoons serve to break up the monotony of an otherwise uneventful history.

Manila was captured by the English under Draper and Cornish in 1762, and ransomed for \$5,000,000, but was restored in 1764. The present insurrections in the islands were put down with an iron hand and many atrocities were committed, so that it is little wonder that many of the inhabitants look upon the arrival of the Americans as a deliverance.

While none of the islands have very high mountains (the highest, Apo, in Mindanao, being over 9000 feet) still all the islands may be described in general as mountainous and hilly. Volcanic forces have had a large share in shaping the archipelago, but few of the peaks are now volcanic. In 1814 a terrible eruption destroyed 12,000 people at Camalig, Budiao, Albay, Guinobatan and Daraga. In 1867 the same district was visited with another eruption. The Philippines are also notorious for terrible typhoons. In 1876 one of the storms burst over Luzon, pouring down the sides of the mountain Mayon, bringing destruction to a number of cities, completely ruining 6000 houses. Typhoons on the coast are also common. The third great evil to which the islands are treated are the earthquakes, which visit them so frequently that they affect the style adopted in the erection of buildings. The most violent earthquake occurred in 1880, destroying an immense amount of property, including the cathedral.

The Philippine Islands are peculiar in having three seasons—a cold, a hot and a wet. The first extends from November to February or March. The winds are northerly, and woollen clothing and a fire are desirable; the sky is clear and the air bracing, and Europeans in this strange clime consider it the pleasantest time of the year. The hot season lasts from March to June, and the heat becomes oppressive and thunder storms of terrific violence are frequent. During July, August, September and October the rain comes down in torrents and large tracts of the lower country are flooded. The population of the Philippines is 7,670,000, the capital, Manila, having 154,062 inhabitants. There is a small Spanish resident population and about 100,000 Chinese, in whose hands are the principal industries. The native inhabitants are mostly of the Malayan race. The government is administered by a governor general and a captain general, and the forty-three provinces are ruled by governors, alcaldes or commandants, according to their importance or position. The estimated revenue of the islands in 1894-95 was \$13,500,000 and the expenditure \$13,200,000. There is an export duty on tobacco, and nearly every article imported is taxed. The chief products are sugar, hemp, coffee and indigo, and there are large coal fields which are now opened, so that it is expected that 5000 tons of coal per month may be mined. The imports in 1896 were about \$12,000,000 and the exports \$20,500,000. There are 70 miles of railway on the islands and 720 miles of telegraph.

Manila lies on the western side of the island of Luzon, and is about 500 miles from Hong-Kong. It has one of the most spacious and beautiful harbors in the world. The shores are low and inland can be seen the outline of mountains. The city of Manila resembles a

dilapidated fortress surrounded by stone walls 800 years old. There is also a wide, shallow moat. The gates are never closed, and it is doubtful if the city could make any defense. There is also an old fort. Several creeks branch off from the landlocked bay and afford a means of communication with the suburbs.

These creeks are crossed by innumerable bridges, and canoes thread their way through these narrow waterways which somewhat resemble a tropical Venice. Around the walls and the edge of the bay is a fashionable drive, lined with almond trees. It is here that the well-to-do inhabitants walk, drive and meet their friends. Of nearly 300,000 people in the province there are not more than 5,000 Spaniards. One of the most curious sights to the traveler who comes from China are the large two-wheel drays drawn by so-called water buffaloes. They are guided by a ring through their nose to which is attached a cord leading back to the driver, who either mounts on his back or rides on the shafts. The weight of the load is borne on the neck by means of a yoke. The beasts are docile, and their chief delight seems to be to wallow in the mud or to submerge themselves so that only the nose is out of the water. The water buffalo is particularly valuable to the inhabitants as a beast of burden, as it can drag a plow and can walk while knee deep in mud. The milk of the female is very generally used instead of cow's milk, but its meat is unfit for food.

In the two best streets of Manila there are excellent stores in which goods of all kinds can be purchased at moderate prices, many of the merchants being Chinese. The churches must have been imposing buildings years ago before they were shaken and in some cases wrecked by earthquakes. They contain no works of art of any value. The inhabitants are very faithful to their church and the archbishop possesses almost unlimited influence with the inhabitants. It had often been said, if the priests were taken away, the natives would be ungovernable. The dwelling houses in Manila are constructed with a view of shutting out the intense heat of the summer. The houses are rarely more than two stories in height, owing to the ravages of earthquakes. Glass is of course unknown, as the earthquakes would shiver every pane. There is coal in abundance in the Philippine Islands, as already stated, and the streets of Manila would undoubtedly be lighted with coal gas if it were not for the fact that gas pipes would be destroyed in the unstable soil. Of course, accidents are of frequent occurrence with kerosene, but as the natives' houses are very inexpensive, their loss by fire is very easily made good.

Strange to say, life in the old city does not present many points of interest to the traveler, for the streets are narrow and the houses solid and gloomy. It is a marked contrast to the business-like cities of South America. The Spaniards born in the Iberian peninsula look down upon those born in the islands, so that class distinctions are very closely drawn.

This has resulted in the failure to make political combinations. Hatred and jealousy of the foreigners are carried to extreme limits, the Chinese coming in for a large share of

their disfavor. The theatres are poor, concerts are rare, and there is no library, and their amusements are mostly limited to hearing the bands play, attending balls on Sundays and cock fights. The cockpits are licensed by the government, and though the betting is limited by law, the citizens will not hold it. The revenues of the island are furnished by direct taxes on every Indian, half-breed and Chinese, and the export duties have already been referred to.

The dress of the natives is exceedingly picturesque, and is never adopted by the Spanish. Cigar makers in and around the city of Manila number 22,000, and they are all girls and women, with the exception of 1500 men. They present a picturesque appearance with their native costume and huge hats, intended to protect them from the rays of the sun. They make their cigars squatting on their heels or sitting on bamboo stools two inches high. They frequently come from considerable distances, go back and forth in boats. Tobacco has always been and probably will continue to be the most important product of the Philippines; and, according to the old laws, the Indians were compelled to raise tobacco in certain regions which were not adapted to growing it, even to the exclusion of other crops, but in 1883 the laws were repealed and the result was the securing of finer tobacco and better cigars, for they are now made at a high rate. The wants of the natives are few and are easily supplied. They live along the banks of the rivers in huts made of bamboo and cane, thatched with palm leaves. Some of the views in the suburbs of Manila are enchanting.—*Scientific American*.

The Situation in Sulphur.

Perhaps no article of commerce is being affected more by the present war than sulphur. As is well known this commodity has been made contraband, and as almost the entire supply used in this country comes from abroad it will be readily seen that placing an embargo upon it not only affects the importers and refiners of sulphur, but the paper, match and other trades using the article in their manufactures.

Stocks of best seconds are now practically out of the importers' hands. Crude seconds were quoted on April 1 at \$22 to \$22 50 per ton, and on April 30 they were quoted at \$38 nominal. The price to the newspaper mills was \$1.60 per cwt. last March, and last Saturday it was quoted at \$2.25 per cwt. These figures give some idea of the rapid rise in price of this article caused by the prospect of the supply being cut off.

An importer, when questioned as to the situation, said: "Italy enjoys a large income from the export duty on sulphur. The Italian government made an effort to have sulphur taken off the contraband list, the argument to be used for such action that where about 100,000 tons are imported by the United States yearly, not more than 3000 tons are used in the manufacture of gunpowder."

"Sulphur comes from Sicily and Japan, principally from Sicily. It is loaded there in British ships and is bought by importers here

through a British syndicate in London, which syndicate will also use its influence to have the embargo against the article raised. Three ships have recently arrived with consignments to local importers. They are the March, with 1050 tons; the Hesperia, with 1000 tons; and the Istria, with 1500 tons. The Italian government enjoys a practical monopoly of the trade. The Standard Oil Company obtains some from its borings in Louisiana, and there was at one time an effort to obtain sulphur from pyrites by a redemption process. A company was organized to carry on operations in the northern part of this State, but I have not heard much about it of late."

The paper trade is considerably agitated over the situation, as it is estimated that at the most the mills have not more than two months' supply ahead, and while the demand for paper, particularly news, has largely increased within the past few months paper manufacturers see the possibility ahead of their being obliged to close their mills for lack of sulphur with which to make sulphite fibre.

Mr. C. U. Ballard, representing S. Walton & Co., paper manufacturers, when questioned as to the outlook, said: "The consumption of sulphur in the United States for making sulphite fibre is about 225 tons per day, or nearly 70,000 tons yearly, out of the total imports reported as 108,000 for the year 1897. Three hundred to four hundred tons of sulphur is required to manufacture each ton of sulphite fibre. Of the latter the daily production of this country is about 1500 tons, all of which is used in manufacturing paper. For some years past it has largely superseded every other fibre for making printing and wrapping papers. The latter are colored yellow and are known as manila paper, taking the place of paper formerly made of jute."

"Ordinary news paper has about 20 per cent. of sulphite fibre, and wrapping papers from 10 to 100 per cent. What is known commercially as wood pulp has no fibre and is merely a filler. It is made by grinding logs of wood on grindstones and is then ready for the paper machine."

"A certain amount of fibre manufactured by the soda process is made in this country, but not enough is obtainable to provide a substitute in case a large part of the sulphite fibre production was suspended. The principal soda fibre plant is in Johnsonburg, Pa. Sulphite fibre is produced most extensively in an enormous plant at Piedmont, W. Va., and is also one of the principal industries of the State of Maine. There are many such plants in the Adirondack region of this State, and at other points where wood is cheap and transportation facilities provided to make the fibre."

"Cables received yesterday contained the information that two steamers about to leave Sicily with cargoes of sulphur have just been unloaded by order of the Italian government. The arrivals here are usually heaviest in the spring months. Since the destruction of the Maine the demand for news paper has increased until it is now about sixty tons per day more than the utmost capacity of the mills, and the latter are said to be running Sundays as well as twenty-four hours per day during the week."—*N. Y. Journal of Commerce*.

JUNE 25.

WEEKLY MARKET REPORT.

1898.

	June 18.	June 20.	June 21.	June 22.	June 23.	June 24.	SAME DAY LAST YEAR.	TOPE OF MARKET AT CLOSING OF WEEK.	
SUGAR.									
Open Kettle.									
Choice	31 1/2 @ 4	31 1/2 @ 4	31 1/2 @ 4	31 1/2 @ 4	31 1/2 @ 4	31 1/2 @ 4	31 1/2 @ 3 3/4	Steady.	
Strict Prime	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4	31 1/2 @ 3 3/4		
Prime	31 1/2 @ 3 1/4	31 1/2 @ 3 1/4	31 1/2 @ 3 1/4	31 1/2 @ 3 1/4	31 1/2 @ 3 1/4	31 1/2 @ 3 1/4	31 1/2 @ 3 1/4		
Fully Fair	31 1/2 @ 3	31 1/2 @ 3	31 1/2 @ 3	31 1/2 @ 3	31 1/2 @ 3	31 1/2 @ 3	31 1/2 @ 3		
Good Fair	31 1/2 @ 2 3/4	31 1/2 @ 2 3/4	31 1/2 @ 2 3/4	31 1/2 @ 2 3/4	31 1/2 @ 2 3/4	31 1/2 @ 2 3/4	31 1/2 @ 2 3/4		
Fair	31 1/2 @ 2 1/4	31 1/2 @ 2 1/4	31 1/2 @ 2 1/4	31 1/2 @ 2 1/4	31 1/2 @ 2 1/4	31 1/2 @ 2 1/4	31 1/2 @ 2 1/4		
Good Common	31 1/2 @ 2	31 1/2 @ 2	31 1/2 @ 2	31 1/2 @ 2	31 1/2 @ 2	31 1/2 @ 2	31 1/2 @ 2		
Common	31 1/2 @ 1 3/4	31 1/2 @ 1 3/4	31 1/2 @ 1 3/4	31 1/2 @ 1 3/4	31 1/2 @ 1 3/4	31 1/2 @ 1 3/4	31 1/2 @ 1 3/4		
inferior	31 1/2 @ 1 1/2	31 1/2 @ 1 1/2	31 1/2 @ 1 1/2	31 1/2 @ 1 1/2	31 1/2 @ 1 1/2	31 1/2 @ 1 1/2	31 1/2 @ 1 1/2	Dull.	
Centrifugal.									
Plant'n Granulated.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ 4 1/4		
Og Granulated	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/2 @ 4		
Choice White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/2 @ 3 3/4		
Og White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	3 1/2 @ 3 1/4		
Grey White	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Choice Yellow	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	3 1/2 @ 3 3/4		
Prime Yellow	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	3 1/2 @ 3 1/4		
Good Yellow	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	4 1/2 @ 4 1/4	3 1/2 @ 3 1/4		
Seconds	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	2 1/2 @ 3 3/4	Easy.	
MOLASSES.									
Open Kettle.									
Fancy	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.	None in first hands.		
Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Strict Prime	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Good Prime	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Prime	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Good Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Good Common	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
Common	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		
inferior	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Easy.	
Centrifugal.									
Fancy	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ —		
Choice	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	12 @ 13	— @ —		
Strict Prime	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 11	— @ 9		
Good Prime	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 10	— @ 8		
Prime	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 9	— @ 7		
Good Fair	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 8	— @ 6		
Fair	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 7	— @ 6		
Good Common	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 6	— @ 5		
Common	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 5	— @ 4		
inferior	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ 4	— @ —	Easy.	
SYRUP.									
	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —		

OTHER MARKETS.

NEW YORK:								
SUCAR.								
Fair Refining, 89	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Moderate demand.
Centrifugals, 96	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Granulated	5.08 @	5.08 @	5.08 @	5.08 @	5.08 @	5.08 @	4.47 @	
Standard A.	4.96 @	4.96 @	4.96 @	4.96 @	4.96 @	4.96 @	4.85 @	
Cuba, 96, Ctf.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
MOLASSES.								
N. O. Choice	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
N. O. Fair	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Cuba, 50	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
LONDON:								
Java, No. 15 D. S.	12s. 9d.	12s. 9d.	12s. 9d.	12s. 6d.	12s. 6d.	12s. 6d.	10s. 3d.	Weak. Flat.
A. & G. Beet	9s. 8½d.	9s. 7½d.	9s. 8½d.	9s. 6½d.	9s. 6d.	9s. 5½d.	8s. 6½d.	

NEW ORLEANS REFINED

Cut Loaf	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	Steady.
Powdered	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	— @ 5 1/4	
Standard Granula'd	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	— @ 5.44	
Candy A.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Rosetta Ex. C.	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 5.82	— @ 4 1/4	
Crystal Extra C.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
Royal Ex. C.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
SYRUP								

STOCKS.

At four ports of the United States to.....	June 15.....	Tons	310,843
At fourports of Great Britain to.....	June 11.....	"	82,000
At Havana and Matanzas to.....	June 15.....	"	82,700

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK
ENDING JUNE 24, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels	Barrels.
Received.....	—	1,124	297
Sold.....	—	2,577	297

RECEIPTS AND SALES AT NEW ORLEANS FROM SEPT.
1897, TO JUNE 24, 1898.

	SUGAR		MOLASSES.
	Hhds.	Barrels.	Barrels.
Received.....	23,465	1,511,772	202,900
Sold.....	23,465	1,509,165	202,104
Received same time last year....	37,451	1,803,134	323,559

JUNE 25.

WEEKLY MARKET REPORT.

1898.

RICE.	June 18.	June 20.	June 21.	June 22.	June 23.	June 24.	SAME DAY LAST YEAR.	TONE OF MARKET AT CLOSING OF WEEK.
ROUGH, 100 bbl.	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	Dull.
CLEAN, Fancy	8 1/4 @ 6 1/4	8 1/4 @ 6 1/4	8 1/4 @ 6 1/4	8 1/4 @ 6 1/4	8 1/4 @ 6 1/4	8 1/4 @ 6 1/4	5 1/4 @ 6	
Choice	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 6	5 1/4 @ 5 1/2	} Quiet.
Prime	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	4 1/4 @ 5	
Good	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	4 1/4 @ 4 1/2	
Fair	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	5 1/4 @ 5 1/2	4 1/4 @ 4 1/2	
Ordinary	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	3 1/4 @ 3 1/2	
Common	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	4 1/4 @ 4 1/2	— @ —	Nominal.
Inferior	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	— @ —	
No. 2.	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	2 @ 2 1/4	
BRAN, 100 ton.	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	12 50 @ 18 00	
POLISH, 100 ton.	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	16 00 @ —	17 00 @ 18 00	

RECEIPTS AND SALES AT NEW ORLEANS FOR THE WEEK ENDING JUNE 24 1898.

	SACKS ROUGH.	BLS. CLEAN.
Received	32	—
Sold	—	124

RECEIPTS AT NEW ORLEANS FROM AUG. 1, 1897, TO JUNE 24, 1898, COMPARED WITH LAST YEAR, SAME TIME.

	SACKS ROUGH.	BLS. CLEAN.
This year	469,713	8,081
Last year	375,848	8,680

Sugar.

The local sugar market was steady at the close of the week. A fair demand prevailed and receipts from plantations were good for this season of the year.

Molasses.

No open kettle goods in first hands. Centrifugals easy.

Rice.

The rice market was dull at the end of the week, with practically no arrivals of rough and but small offerings of clean rice.

Glucose Rebates Abolished.

Advices have been received in this city from the head office of the Glucose Sugar Refining Company at Chicago that the rebate system will be abolished and that sales of glucose will hereafter be made at net prices. Following is an exact copy of the notice:

"Taking effect Monday, June 6, the rebate system will be abolished. All goods will be sold without rebate. All rebates will be refunded to those who are entitled to them at once."

At the New York office of the company no explanation could be obtained regarding the reasons for the change. Mr. E. C. Wemple, the company's representative here, stated that all the information he had received was that the rebate system had been abolished and that glucose would hereafter be sold at net prices.

The announcement by the trust marks the end of a movement to force all buyers to agree not to purchase from outsiders. Following is the text of the agreement that the trust's customers were asked to sign:

"Subject to the conditions named herein and for the purpose of securing the continuous patronage of the within-named purchaser and successors and assigns of the same for its product the Glucose Sugar Refining Company six months from the date of this purchase voucher will pay to Blank Brothers of Chicago \$150, being a rebate of 1/4c. per pound on

60,000 pounds of the Glucose Sugar Refining Company's product purchased this day.

"This voucher will be valid and payable only on condition that the above-named purchaser, the successors and assigns of the same, from the date of the voucher to the time of its payment, shall have bought their supply of such kinds of goods as are produced by the Glucose Sugar Refining Company from said company exclusively, and shall have also subscribed to the certificate on the back hereof."

The rebate system went into operation on September 27 last, and caused much feeling among the local mixers. Several of the largest mixers in the city promptly announced that they would refuse to sign, and as a matter of fact, they maintained this position, although some of them were compelled to purchase from the trust through third parties, as the outside manufacturers could not produce sufficient to supply the demand from this source. This situation will soon be changed, as a large rival—the American Glucose Company—will, it is expected, open its first plant, at Waukegan, Ill., in August. Mr. Thos. A. McIntyre, who is a director in the new company, said yesterday that the plant would be in operation within three months. This plant will have a capacity of 16,000 to 17,000 bushels corn daily. Aside from this the only opposition that the trust has in sight is the Chas. Pope Company, with factories at Geneva and Venice, Ill., and the National Starch Company, at Glen Cove, L. I. As a rule, the idea of the trade in regard to the removal of the restriction in regard to buying is, that the "trust desires to get the trade in good humor in view of the approaching competition."

THE TRUST INCREASING ITS SYRUP MIXING BUSINESS.

There are, however, members of the trade who regard the trust's action in a much more serious light. The trust, they assert, has recently converted one of its Chicago plants into a mixing establishment, and proposes a large increase in its system of mixing syrup and distributing it on a comprehensive scale by means of tank cars. The mixers in question claim that this plan of distribution means, sooner or later, the absolute control of the domestic syrup business. Agents, they claim, will be appointed to represent the trust at large and

small centres, and grocers and others will be appointed to purchase their syrup in bulk. For instance, several grocers of Utica will send orders; these orders will be combined by the local agent, and when the tank car arrives the mixed syrup will be delivered into the grocers' own casks or other receptacles that they may desire to use. By such a method of distribution the freight on the barrels or casks is saved in both directions. There is also an important item of saving in leakage account, which buyers at present have to pay.

There has been a feeling among the local mixers that the rebate system has not been maintained and that favorites have been able at all times to purchase at net prices when they desired.

The current net prices quoted by the trust and also by the independent concerns are on the basis of \$1.40 per 100 pounds for 41 deg. test. This represents no change from the rebate price of \$1.65, which was quoted last week.

The capitalization of the trust is \$40,000,000, of which \$26,000,000 is common and \$14,000,000 preferred stock. The companies included are the Chicago Sugar Refining Company, of Chicago; the Davenport Refining Company, of Davenport Ia.; the Firmenich Glucose Company, of Chicago; the Peoria Glucose Company; the American Glucose Company, of Peoria, Ill., and the Rockford Glucose Company, of Rockford, Ill. The trust is incorporated under the laws of the State of New Jersey. The certificate of organization says the object of the company is to manufacture and deal in corn and all of its products and by-products, together with all preparations and mixtures made directly or indirectly from corn.

The Glucose Sugar Refining Company has given notice to its customers that beginning to-day it will give up the rebate system, by which its customers' money, to the extent of twenty-five cents a hundred pounds, was held by the company six months to ensure compliance with the trust's requirements. The amount thus held was enormous, reaching at some times \$1,000,000. Hereafter a flat price is to be quoted to the jobbers.—N. Y. Journal of Commerce.

WANTS.

We will publish in this column, free of charge until further notice, the applications of all managers, overseers, engineers and sugar makers, and others who may be seeking positions in the country, and also the wants of planters desiring to employ any of these.

WANTED—POSITION AS PLANTATION
cook. Address JAMES WALDRON, 1227 Decatur street, New Orleans. 6-21-98

WANTED—A SITUATION BY A COMPETENT
man as clarifier on some large plantation for season of 1898; can furnish good references as to ability; would also accept position as cane shed boss or cane weigher. Address L. H. HINCKLEY, Charenton, La. 6-20-98

WANTED—BY A YOUNG MARRIED MAN, A
position as hostler on a sugar plantation; understands the care of horses and their sickness; best of references furnished. Address EX, 1301 Cambourne street, Seventh District, New Orleans, La. 7-23-98

WANTED—A POSITION AS ASSISTANT VAC-
uum pan sugar boiler for next season, by a sober, settled man; has a great deal of experience in a sugar house, having been an overseer for sugar plantation for a number of years. Address L. J. B., Ellendale, La. 6-13-98

WANTED—A POSITION BY A YOUNG LADY
as governess during the summer for young children in the country, near the city; good references, easy terms. Address BOX 613, Station E, New Orleans.

WANTED—A POSITION AS SUGAR HOUSE
superintendent or chemist, by a man of long experience, with good references. Address D. J., 1406 Valmont street, city. 6-14-98

WANTED—A POSITION AS VACUUM PAN
sugar maker; ample references given. Address J. G., this office. 6-13-98

WANTED—SITUATION AS SUGAR BARREL
cooper. Address A. CHAMETT, 2714 Second street, New Orleans. 6-15-98

WANTED—A TRUSTWORTHY, COMPETENT
man to take charge of boarding house under salary; must have experience and satisfactory references. Address C. P., this office. 6-15-98

WANTED—AMERICAN CHEMIST, 25 YEARS
of age, graduate of Heidelberg University, Germany, thoroughly acquainted with the sugar industry, is looking for a position as sugar chemist. Best references. Address B. G. HARTMAN, 118 S. Charles street, Belleville, Illinois. 6-16-98

WANTED—A POSITION AS ENGINEER TO DO
repairs and take off the crop; am strictly sober, a man of family, and have had long experience; good references. Address P. H. ELLIOTT, 724 Fern street, New Orleans, La. 6-9-98

WANTED—POSITION AS CHEMIST IN BEET
or cane sugar house; am 28 years of age, temperate and a hard worker; am competent for the work; modest pay; can furnish Schaidt & Harusch polariscope, if wanted; good reference. Address CHEMIST, Box 175, Medicine Lodge, Kas. 6-8-98

WANTED—BY GENTLEMAN WITH SMALL
family, a position as book-keeper and manager in town or country store; thoroughly experienced in office work and general business; best of references, and bond furnished, if required. Address MORTIMER, care The Chief, Donaldsonville, La. 6-10-98

WANTED—A POSITION AS SUGAR MAKER ON
a plantation for the coming season; have had long experience with vacuum pan and open kettle sugar; can furnish best references. Address A. FREDERIC, 3412 North Rampart street, New Orleans, La. 6-9-98

WANTED—A COMPETENT, SOBER MAN DE-
sires a position as sugar boiler; understands his business; will give first-class reference. Address G., 1137 Dauphine street, New Orleans. 6-7-98

WANTED—A POSITION AS STORE KEEPER,
time keeper, or any clerical capacity, by a man of experience, who can furnish both country and city references. Address C. J. A., 1015 Race street, New Orleans. 6-7-98

WANTED—A POSITION AS ASSISTANT
engineer, and to do repairing on a sugar plantation, by a man of experience in sugar house and foundry work. Address F. H. P., General Delivery, New Orleans, La. 6-3-98

WANTED—SITUATION BY A GRADUATE OF
polytechnic academy; fourteen years' experience in beet sugar factories; well versed in practical sugar manufacturing; chemical control; arrangement of sugar house; beet culture, etc.; best of testimonials and references given. Address C. D., 147 Green street, Brooklyn, N. Y. 6-2-98

WANTED—AT ONCE, TWO EXPERIENCED
refinery sugar boilers for a refinery in this country. Only those with first-class references will apply to H. F., care LOUISIANA PLANTER. 6-6-98

WANTED—POSITION BY A YOUNG FRENCH
engineer (civil graduate), twelve years' experience in machinery, electricity, buildings; wants any kind of situation or job. Address H. B., LOUISIANA PLANTER. 6-6-98

WANTED—A GOOD MECHANIC TO REPRE-
sent me in each sugar parish in the State for the sale and construction of my new automatic cane transfer. Address E. W. WILEY, Jr., Lecompte, La. 6-2-98

WANTED—A POSITION BY AN EXPERI-
enced sugar maker for the coming crop; many years' experience; best of references given. Address ALBERT PEYRONNET, 1933 Dumaine street, New Orleans, La. 6-2-98

WANTED—A POSITION FOR COMING SUGAR
crop as cane weigher, juice keeper or water tender, by a married man; best of references. Address GEO. TASSIN, New Orleans, La. 5-28-98

WANTED—A POSITION BY A COMPETENT
vacuum-pan sugar maker to take off the crop during the next season; I can do my own clarifying; strictly temperate and reliable; references furnished on application; would accept an assistant in a large crop. Address SUGAR MAKER, Lock Box 20, Eagle Lake, Texas. 6-2-98

WANTED—BY A MAN OF MANY YEARS'
experience, a situation as clarifier for vacuum pan, or sugar boiler and clarifier on open kettle, or open steam train; the best of references given. Apply to E. MEYNARD, Charenton P. O., St. Mary parish, La. 6-1-98

WANTED—A POSITION BY A YOUNG MAN
with experience as clerk in a country or plantation store; has knowledge of book-keeping; good references. Address C. F. A., this office. 5-31-98

WANTED—POSITION BY A FIRST-CLASS
sugar chemist of long experience, competent to take charge of any department of sugar manufacture; excellent recommendations. Address CLEMENS DOMES, 147 Green street, Brooklyn, N. Y. 5-19-98

WANTED—POSITION ON A SUGAR PLANTA-
tion as manager or assistant for winter; also next year if everything proves satisfactory; can come October 1 and bring 50 or 100 hands for grinding if wanted; have had much experience in planting and managing labor. Address K., Greensburg, St. Helena parish, La. 5-26-98

WANTED—A POSITION BY AN EXPERI-
enced engineer and machinist, thoroughly familiar with all classes of sugar house and refinery machinery, and can furnish first-class references from employers for the past fifteen years. Address J. E., 535 Magazine street, New Orleans. 5-24-98

WANTED—A SUGAR OR MOLASSES BARREL
maker would like a position on a plantation, or in the city; can furnish references. Address LOUIS ROGERS, 2901 Bienville street, city. 5-21-98

WANTED—A FIRST-CLASS ASSISTANT
vacuum pan sugar maker; give references. Address, Lock Box 193, Patterson, La. 5-19-98

WANTED—A TECHNICAL, EDUCATED MAN,
with three years' experience in Europe, and competent to conduct a beet sugar factory, wants any position where he can make himself useful. Address HOBROC, 46 Cabot street, Boston, Mass. 5-20-98

WANTED—A POSITION AS TRAMWAY EN-
gineer. Address A. E. HUTCHINSON, 740 Nashville avenue, New Orleans. 5-20-98

WANTED—A POSITION AS SUGAR HOUSE
engineer, for construction, repairs and general work. Satisfactory references as to ability and character. Address A. S. ARMSTRONG, 1026 Jena street, New Orleans. 5-10-98

WANTED—A POSITION BY A FIRST-CLASS
sugar-house and refinery engineer to do repairs and take off crop; has fifteen years' experience. Address D. W. B., No. 730 Valmont street, New Orleans, La. 5-3-98

WANTED—BY A FIRST-CLASS MACHINIST
and engineer, fifteen years' experience in refineries and sugar houses; can give first-class reference. Address HENRY WESTON, 740 Poydras street, New Orleans, La. 4-26-98

WANTED—BY A FIRST-CLASS OPEN KET-
tle, open pan and vacuum pan sugar maker, a position for this coming grinding season; best of references can be given. Apply to FELIX SERPASSE, St. Bernard P. O., La. 4-27-98

WANTED—ONE DOUBLE-EFFECT MAN,
having experience. Address SUGAR MAKER, care this office 4-16-98

WANTED—POSITION AS WEIGHER OR SIM-
ilar for coming season, by experienced man of 25; first-class recommendation; well posted on general office work; also open for any kind of employment at once. Address E., care L. Schuster, merchant, Hohen Solms P. O., Ascension parish, La. 5-3-98

WANTED—POSITION ON A PLANTATION AS
assistant manager, time or book-keeper; could take charge of a stable; I am a married man, 30 years old; have good references as to habits and capability; all letters will receive prompt attention. Address WILLIAM DEETRICH, Hammond, La. 4-23-98

WANTED—A POSITION AS RAILROAD
trackman on some plantation. Address E., St. Bernard P. O., La. 5-10-98

WANTED—A POSITION WITH A LARGE
firm as assistant overseer or salesman. Good references furnished. Am single and have good morals. Address Box 2, Natchitoches, La. 4-20-98

WANTED—ONE OF THE BEST REFINERY
and sugar house engineers in the State is now open for an engagement as chief engineer to construct, repair or run any large house in the United States or elsewhere. Address C. H. B., 1937 Cleveland street, New Orleans, La. 4-6-98

WANTED—A POSITION AS CLERK OR AS-
sistant overseer, on sugar plantation; can give best of references as to ability and character. Address 500, care PLANTER.

WANTED—A GOOD GARDENER AND YARD
man. Must be sober, understand the raising of poultry and hogs and be a good milker. Address Mrs. J. S. DARRAGH, Centerville, La. 4-5-98

WANTED—A POSITION AS SUGAR MAKER
for the coming crop, by a man of long experience. I can furnish the best of references from my former employers and will guarantee perfect satisfaction. Address J. R. C., 1319 Magazine Street, New Orleans, La. 4-4-98

WANTED—A POSITION AS GOVERNESS IN
the country near the city by a young lady; good references and reasonable terms; small children preferred. Address GOVERNESS, this office. 4-8-98

WANTED—A POSITION AS FIRST-CLASS
Painter; can give good references. Address 200, this office. 4-9-98

WANTED—A POSITION AS SUGAR MAKER;
would like to take off a crop; can furnish good reference; has had many years' experience. Address GEO. CODE, Sr., No. 4730 Tchoupitoulas street. 3-29-98

WANTED—A CARPENTER, WITH LARGE EX-
perience in heavy framing and sugar house work, and who can work from drawings, desires work in building, altering or repairing sugar houses, or in erecting cane sheds, carriers and conveyors; did more heavy framing than any carpenter in the State. Best of references from architects, builders and planters. C. A. O'KEEFE, 1617 Euterpe street, New Orleans.

WANTED—POSITION BY A THOROUGHLY
competent sugar boiler, who has had many years' experience in refineries, as well as seven seasons of plantation boiling; understands clarification; strictly temperate and reliable; A1 reference. Address S. E. MOORE, 285 South Fifth street, Brooklyn, New York. 2-25-98

WANTED—A POSITION AS BLACKSMITH, BY
a man with eighteen years' experience on sugar plantations; reasonable wages expected; satisfactory reason given for loss of last position; reference first-class. Address T. P. DAKIN, Gibson, La. 3-16-98

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